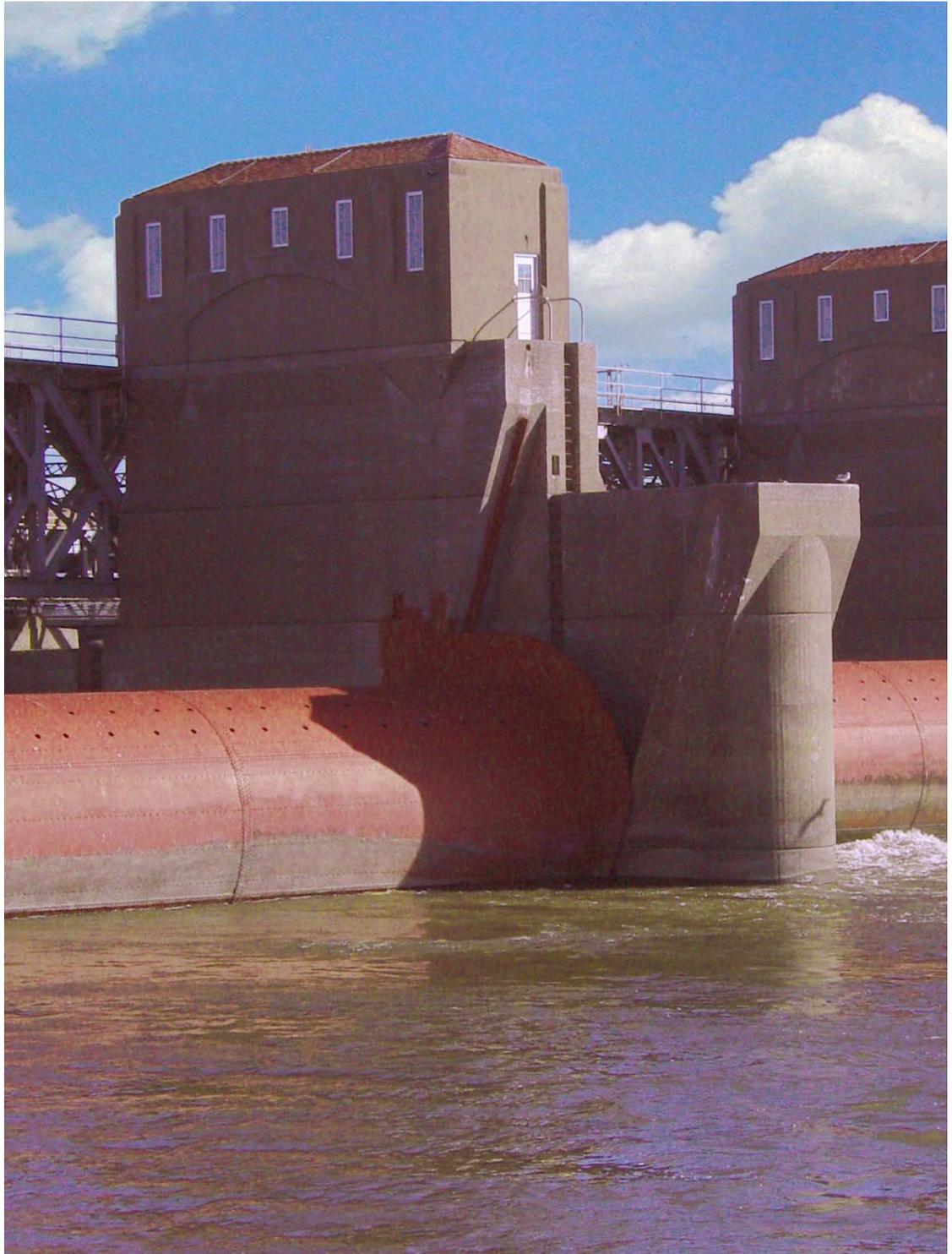


# LOCK and DAM 15 LIGHTING PROJECT

Design Development Final Report  
August 11, 2006

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# 01

## executive summary

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RDG Planning & Design is pleased to present this final report signifying the end of the Design Development phase of the Lock and Dam 15 Lighting Project. This project began with a recommendation in the 2004 RiverVision Design Report and culminated in RDG being contracted to test the feasibility of lighting this prominent structure which has both sentimental and historical significance to the Quad Cities Region.

The design began with several key goals and issues which were to be carefully reviewed and adhered to throughout the lighting design process. These goals were as follows:

- SAFETY OF TOWS (NOT DISTRACTING)
- NO IMPACT TO THE ON-GOING OPERATION OF THE LOCK
- MAINTENANCE/ ACCESS TO LIGHTING EQUIPMENT
- LAMP SOURCE/ ENERGY USE/ LAMP LIFE CONSIDERATIONS
- INITIAL COSTS vs. LONG TERM COSTS
- FACILITY INFRASTRUCTURE
- MINIMIZE GLARE TO BOTH DAVENPORT AND ROCK ISLAND SHORES
- LIGHT POLLUTION/ TRESPASS
- MINIMAL ENVIRONMENTAL IMPACT ON ANY SPECIES OR HABITATS IN THE REGION
- SECURITY OF THE LOCK AND DAM MAINTAINED AND UNCOMPROMISED

In addition to the design team, many other organizations and individuals gave an immense amount of personal time to attend meetings, discussion groups, observe the mock-ups and provide valuable input. Without the assistance of the Corps of Engineers personnel at Lock 15, the success of this study nor the mock-ups could have happened as well as they did.

Included within, is documentation of progress of the project to date. This report includes a summary of the design process, mock-ups, design development level plans and an opinion of probable construction cost and annual energy cost. Additional images and resources referenced or utilized during the design process are included in the appendix.

RDG Planning & Design extends our sincerest thanks for allowing us to complete this study for the RiverVision committee and hopes that someday the illumination of the Dam becomes a reality.

Sincerely,

David Raver, IALD, LC  
Lighting Studio Director  
RDG Planning & Design

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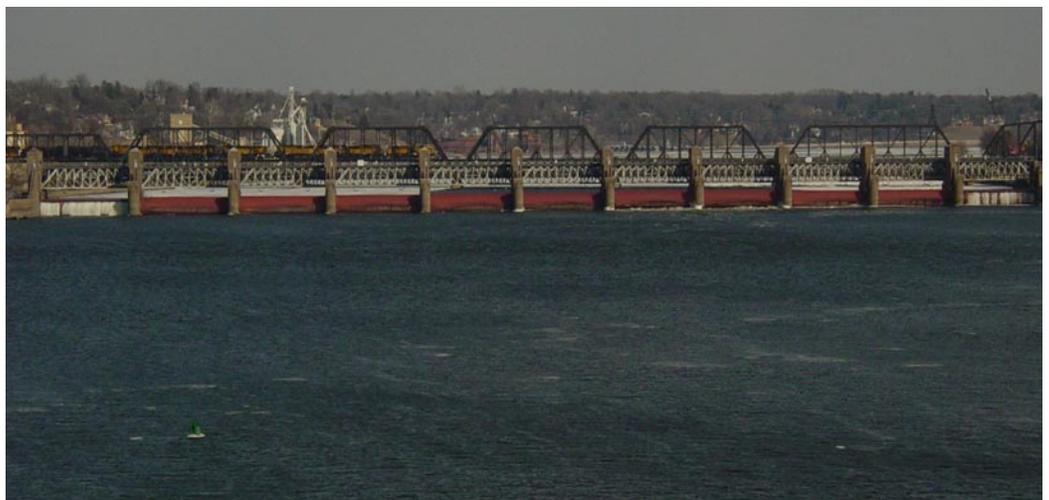
# 02

## introduction and project background

Lock and Dam 15 was one of several suggested iconic structures identified by the RiverVision July 2004 Final Report which had the opportunity to be highlighted through the use of lighting. The report cited “strong public support” for lighting the “unique feature of the area which deserves to have more attention drawn to it.” Through a submittal and interview process, the RiverVision Committee selected RDG Planning & Design out of Des Moines as the Lighting Consultant to undertake the feasibility study for the lighting project. RDG would in–turn conduct several meetings with the local stakeholders to determine interests and goals for the project. Additional meetings with the Corps of Engineers, especially the staff at Lock 15 would be conducted in order to determine the regulations and requirements for the project.

The meetings with the Corps would be instrumental in getting their support to install a lighting system on their property. Initial meetings demonstrated that careful coordination and procedures would have to be implemented in order for the lighting to be not only an aesthetic success, but also a functioning and maintainable solution.

Stanley Consultants out of Muscatine was also retained by RDG in order to coordinate with government entities such as the Coast Guard, Corps of Engineers and DNR. Due to the delicate location of the dam as it relates to both interstate commerce and environmental habitats for multiple species in the region, the lighting solution would be carefully reviewed to ensure that little or no impact would occur on these entities.



# 03

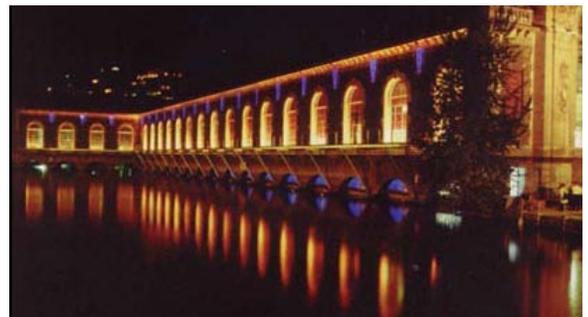
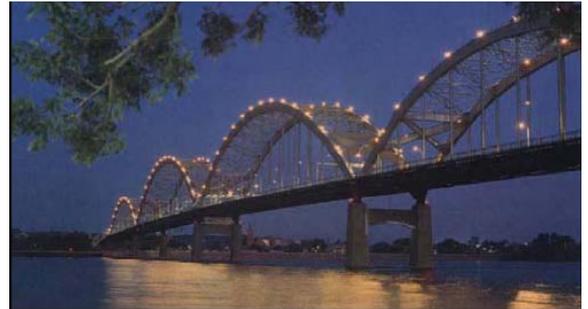
## schedule and processes

### DISCOVERY

On February 21, 2006, RDG Planning & Design conducted a design charette with the RiverVision Committee to begin open dialogue regarding the lighting of the dam– the challenges, issues and potential which could bring this historical structure to life. Through RDG’s process, a “Visual Listening Exercise” (viewing similar structures lit utilizing various techniques) was conducted in order to gain insight into aesthetic likes and dislikes within the committee. Based on this information, RDG was able to begin by having some design direction in developing concepts. A summary of the comments is included below for reference.

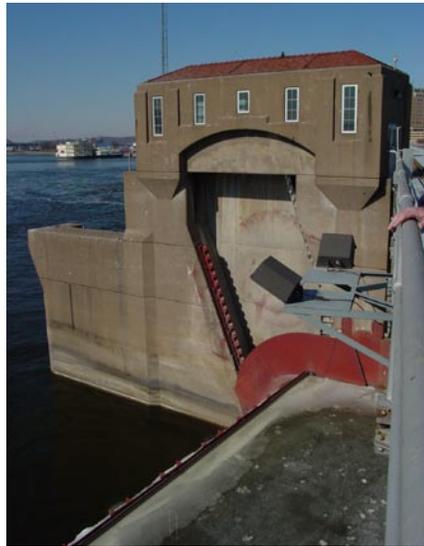
The RiverVision Committee and others participating in the Visual Listening Exercise selected three primary images which they found to be the most impressive visually. The first two, Sky Bridge and Centennial Bridge are local icons which have won praise and support of a majority of the public in the region. The Centennial bridge utilizes standard industrial “jelly jar” type fixtures to create the highlighting “trace” effect of outlining the arches of the bridge. The Skybridge is visually interesting in its constantly changing color “show” which is visible from most areas around the River in both Iowa and Illinois.

The other image is one presented by RDG of a building in France which is illuminated by uplighting the decorative arches uniformly yet also accenting the architecture of the building with the use of blue light. Other images of illuminated structures and bridges resulted in some interesting comments– yet the majority of the group favored the three images listed here.



## TOUR

RDG toured the Dam with representatives from the Corps in order to gain a better understanding of the operation of the Dam and its working components. With this knowledge, RDG was able to better discuss potential fixture mounting locations, maintenance and servicing issues and available power supplies for the lighting equipment. With this information, RDG began to develop design schemes to present to the Corps for approval prior to carrying the design into further development.

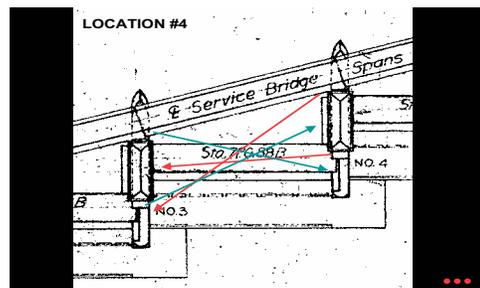
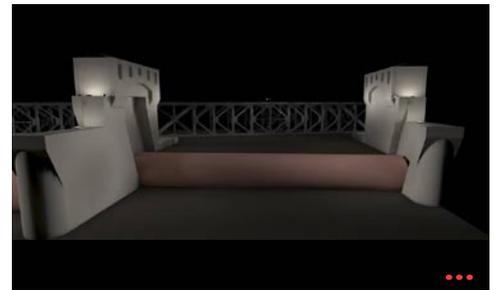
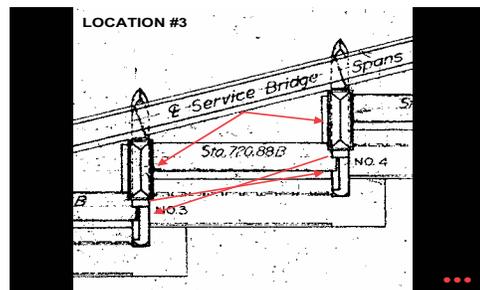
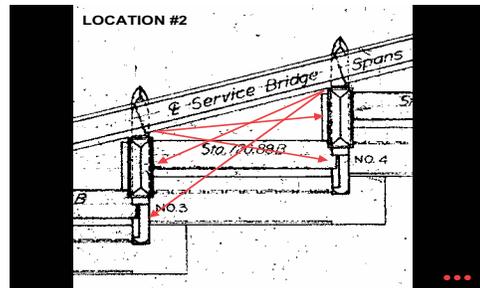
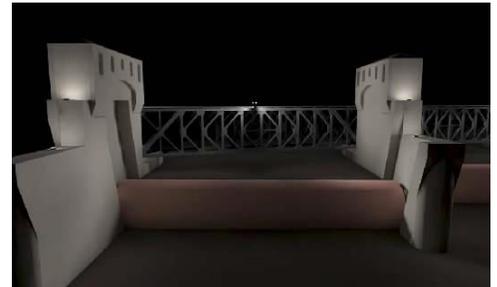
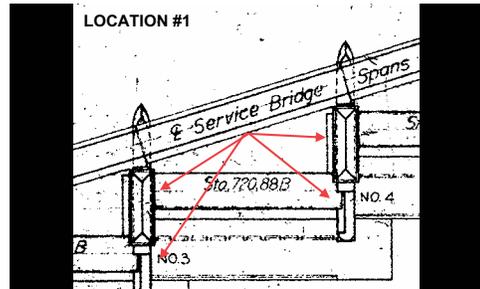


## DESIGN OPTIONS

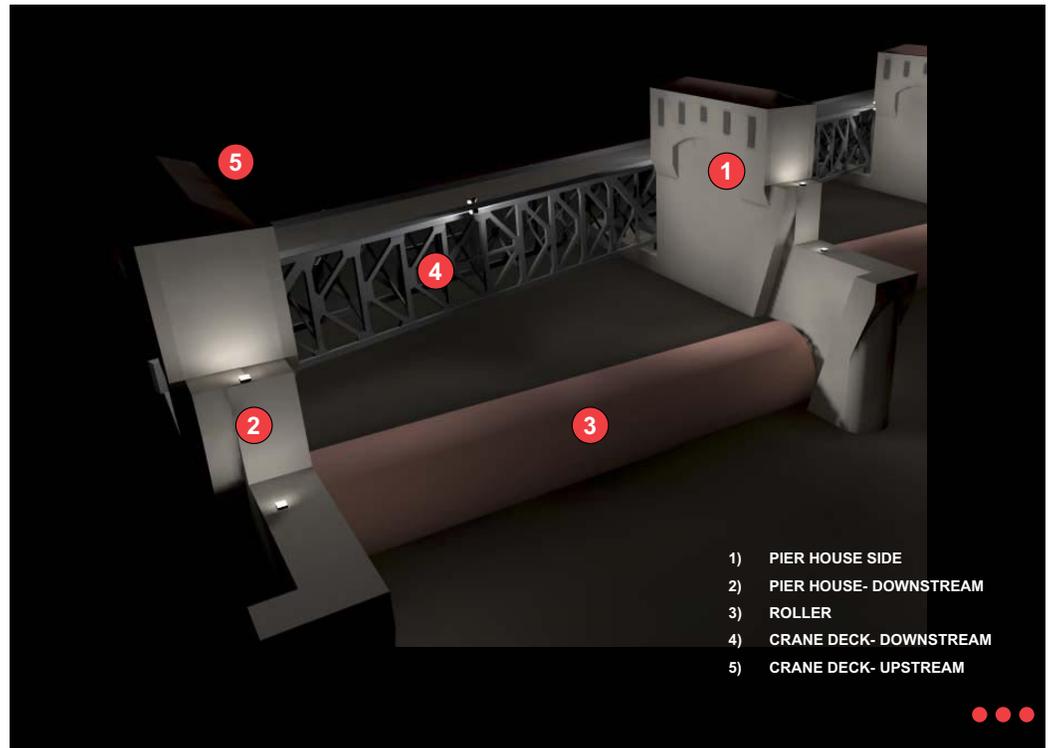
At a meeting on March 30, 2006 with the Corps representatives, RDG presented three different design options involving fixture locations for the Corps to review and comment on. Images of the three options are shown below. The three different options involved different mounting locations for fixtures, quantities of fixtures and a general study of the different elements of the Dam which seemed viable to illuminate. Primary viewing angles were discussed to set priorities for what surfaces of the dam should be illuminated.



Four lighting layouts were presented thru the use of renderings that can be seen below.

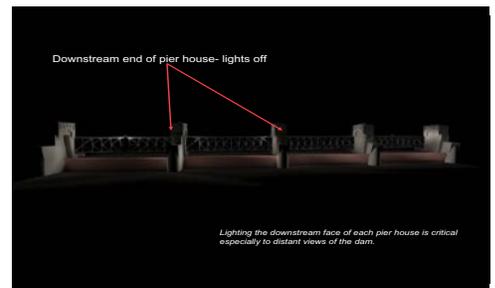
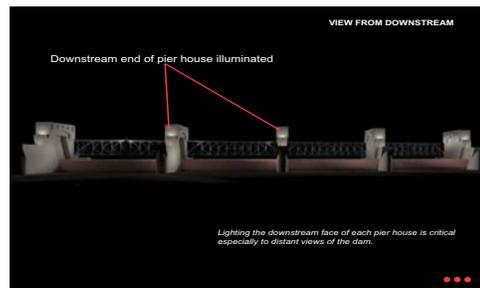


At the conclusion of the meeting, a design scheme (#3) was identified as being the most maintainable while minimizing glare to the tow operators. The Corps approved this scheme and allowed RDG to move forward with a mock-up to further test the scheme in real world conditions.



Discussions of maintenance and control of the lighting system began at this meeting. Insect attraction of the luminaires is a major design consideration. Final design plan will not allow any lighting fixtures aimed above horizontal. This will minimize insect attraction and accumulation.

Control of the fixtures could include a photocell and time clock system. The photocell would energize the system at sunset and the time clock would de-energize the system at a predetermined time. There will need to be a means of overriding the system for barge operators approaching the dam. This could be done via phone/IP address or a photocell the operator could hit with a spotlight while approaching the dam.



## mock up #1

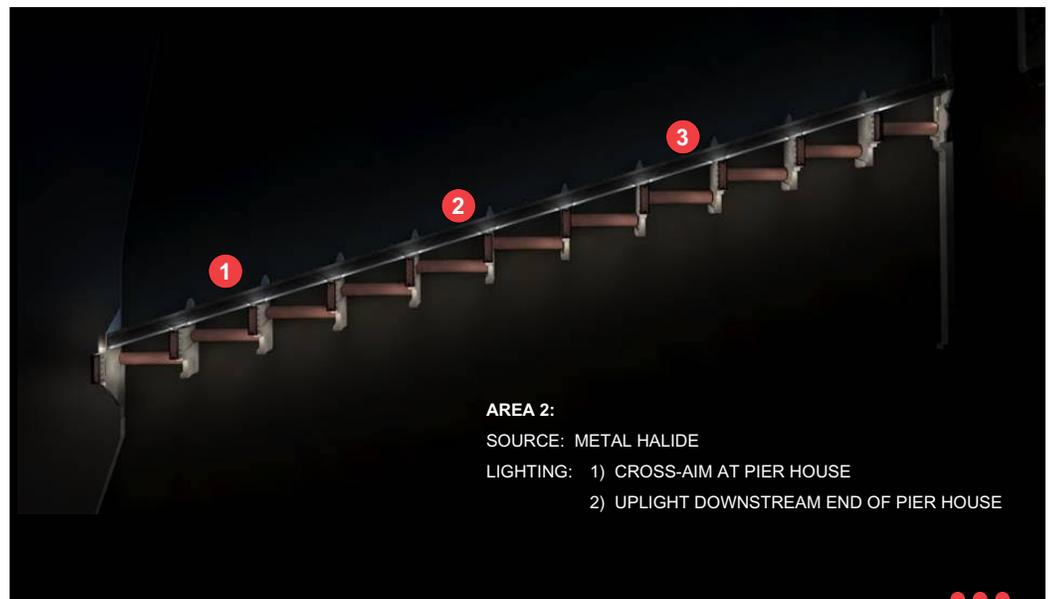
A teleconference was held between RDG and the Corps of Engineers on April 27, 2006. The purpose of the conference was to begin discussing logistics and processes required for the lighting mock-up. The mock-up was scheduled for May 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup>.

RDG arrived on site at Noon on May 9<sup>th</sup> to begin setting up for the mock-up. Transportation of materials up to the dam and setup took until roughly 11:00PM. At this time the Corps of Engineers, RDG, and Alan Carmen went out on a service boat to view the dam from a barge operator's perspective. The Mock-up was left on all night to get comments from any barge operators locking thru the dam.

The three different design schemes would test the following:

- 1) Source: Metal Halide vs. High Pressure Sodium
- 2) Aiming angles
- 3) Illumination of various components (pier house side, pier house front, crane bridge)
- 4) Color (minimal)

A preliminary meeting with the RiverVision Committee was conducted by RDG to describe the mock-up process and to inform the committee on the different components and features in each mock-up. An additional public meeting was held that evening with the intent of informing additional community members of the process in order to gain a wide group of comments and responses. Additional comment forms were issued through the Rock Island website and many media outlets.

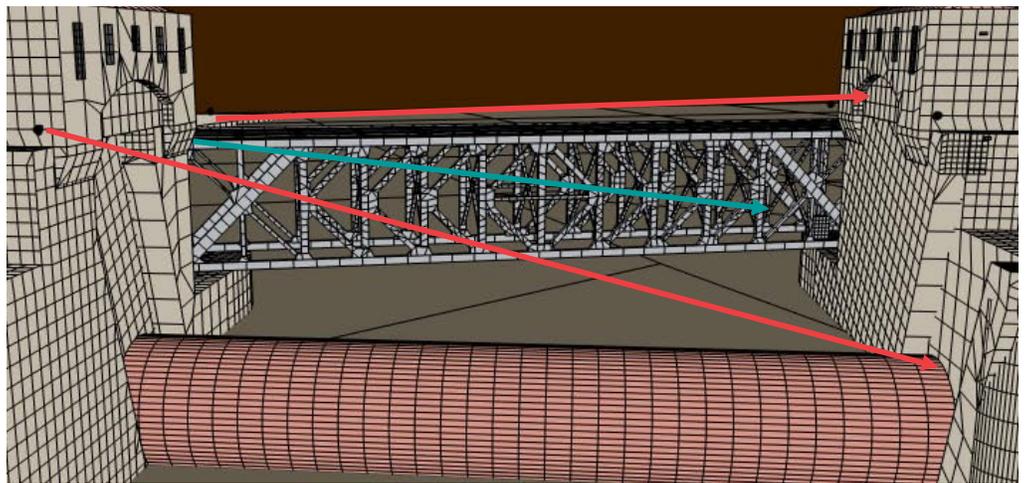


The following is a description of each of the three different components of the mock-up and images from that evening:



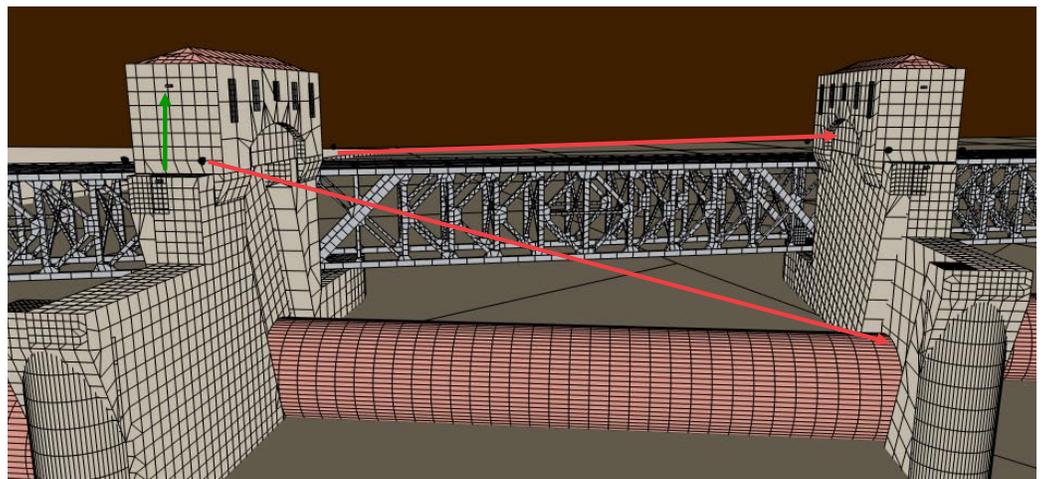
## AREA 1: DAVENPORT SIDE

- Source: High Pressure Sodium
- Fixture: Theatrical spotlights w/narrow distribution
- Quantity: Three per pier house
- Aiming: Fixtures were aimed across the River to the opposite pier house. Additional fixtures on the downstream side of each pier house illuminated the roller on the front of the dam. Two additional fixtures were located adjacent to the crane bridge to cross-light the structure and provide some highlighting of this area.
- Responses: The color of this light drew the most comments. Many, including Corps personnel, were in favor of the “soft” quality of the high pressure sodium light. Others stated that they felt that it blended the structure in with the surrounding orange glow from other high pressure sodium streetlights on adjacent properties and preferred the metal halide solutions utilized in Area 2.



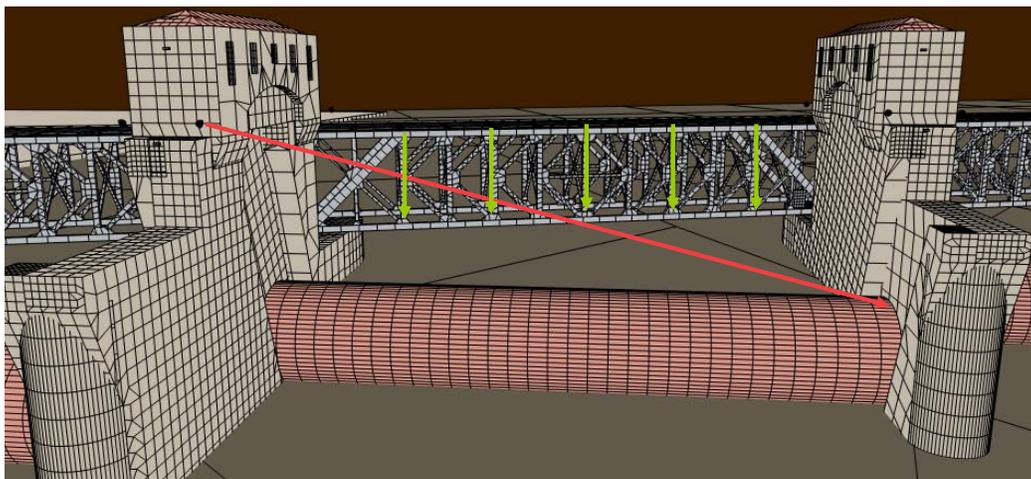
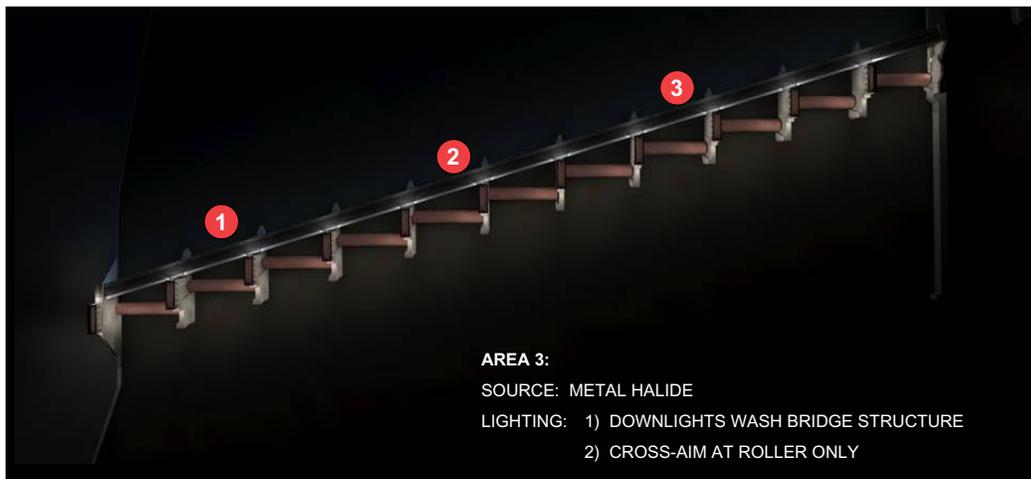
**AREA 2: CENTER OF DAM**

- Source: Ceramic Metal Halide
- Fixture: Architectural floodlight w/ adjustable optics
- Quantity: Three per pier house
- Aiming: Same aiming scheme utilized in Area 1 above
- Responses: Nearly all respondents to the survey preferred this lighting scheme's color. The white light of the metal halide lamps enriched both the color of the pier houses and the crane deck. Additionally, many commented that the white light better highlighted the "foam" of the turbulent river as it passed under the rollers. However, this scheme created a lot of unwanted glare—especially to the Davenport observation points which were identified as one of the primary viewing locations. The amount of glare was identified as unacceptable by both the public and the design team.



### AREA 3: ROCK ISLAND SIDE

- Source: Standard Metal Halide
- Fixture: Architectural floodlights and wall wash fixtures
- Quantity: (2) fixtures illuminating the rollers, (5) fixtures highlighting the crane bridge
- Aiming: Cross-aiming on rollers only. No highlighting of pier houses
- Responses: Of the three schemes, this appeared to be the least favorable. The blue spectrum present in standard metal halide seemed to turn the rollers a “redish-grey” color and they lost their vibrancy as seen in Area 2. In this scheme, however, many thought that the illumination of the crane bridge from the top down provided some visual interest between the pier houses. That said, ignoring the pier houses was not a favorable solution and received negative comments.



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## **SUMMARY**

In general, the design team judged the mock-up as a success. It tested what the computer models had shown in real world conditions with many similarities. Unfortunately, the amount of glare was not anticipated by the design team and resulted in a lot of negative comments from the public. In addition, many in the public were anticipating a lighting “show” and were disappointed by the static nature of the mock-up. However, no color changing schemes similar to the Sky Bridge currently in operation in Davenport would be allowed by the Corps on the dam so this was not even taken into consideration by the design team.

RDG determined that a second mock-up would be warranted to incorporate the comments from the first mock-up and further refine and test the lighting design in real world conditions.



mock-up 1 images





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RDG reviewed and compiled all mock-up review comment forms. They are located in the Appendix of this report.

## mock -up #2

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RDG arrived on site for a second mock-up on June 5<sup>th</sup>. This time RDG only set up two layouts to view. They both tested the same aiming scheme but one was utilizing metal halide lamps and the other high pressure sodium. Blue accent light was also used to accentuate the service bridge structure.

Once again Corps of Engineers, Alan Carmen, and RDG went out to view the dam from a barge operator's perspective. RDG drove to multiple vantage points to verify the glare issues were resolved.

The next day, RDG met with the RiverVision committee to discuss the mock-up and final aiming scheme.

In the second mock-up, RDG was able to concentrate on the successes and lessons learned from the first mock-up in order to more finely tune the options. The prominent viewing angles remained unchanged, but the fixture styles and mounting locations were modified in order to reduce glare to the Davenport side and still maintain the illumination level and source types approved in Mock-up #1.

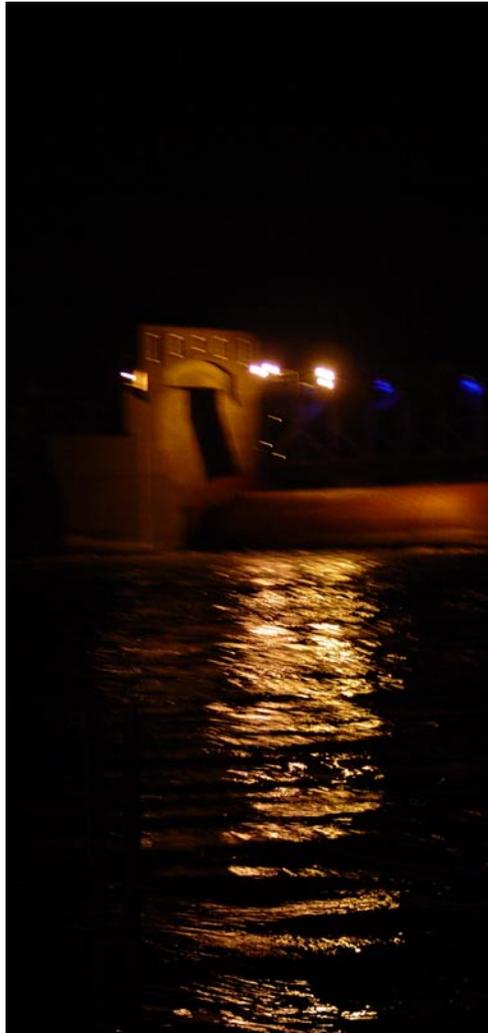
In general the floodlights shining towards Rock Island remained the same from Mock-up #1. These fixtures were relocated slightly more behind each pier house to minimize glare, but their intent and aiming were virtually unchanged. The illumination of the Rock Island wall, however, was accomplished by placing fixtures vertically on the crane bridge with asymmetric forward throw optics. By locating fixtures in this manner, virtually no fixtures were visible from the Davenport shores, yet both sides of all of the pier houses were illuminated to the same intensity.



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**AREA #1: DAVENPORT SIDE**

- Source: High Pressure Sodium
- Fixture: Architectural floodlight and asymmetric wall wash fixtures
- Quantity: Three per pier house (Davenport), Two per pier house (Rock Island)
- Aiming: As described above
- Modifications: Higher wattage and relocated fixtures lighting Rock Island visible side of pier house
- Responses: Similar comments to Mock-up #1 with discussions regarding high pressure sodium vs. metal halide and its relation to adjacent areas. Responses from the Davenport side were much more favorable due to the fact that there was virtually no glare created in this Area or in Area #2.

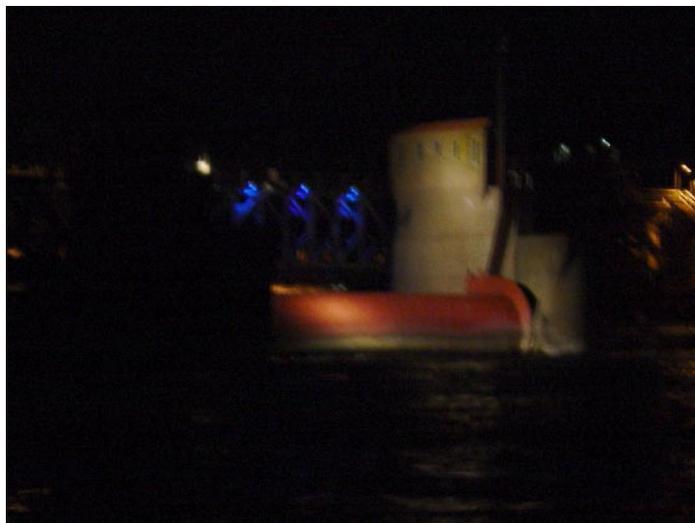
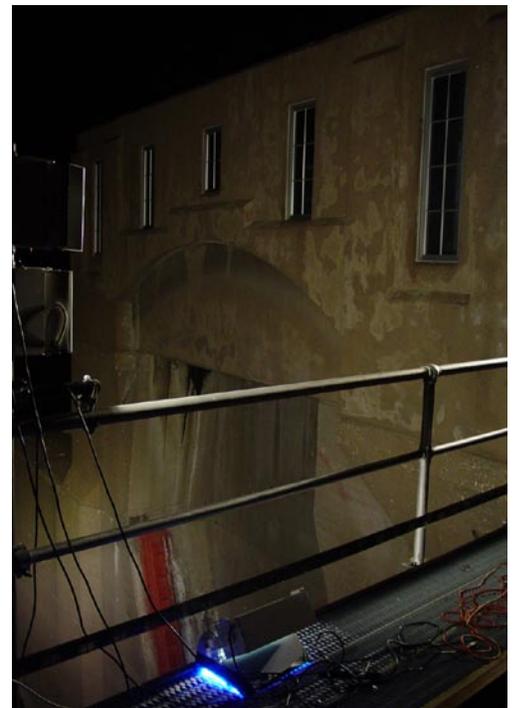




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**AREA #2: ROCK ISLAND SIDE**

- Source: Ceramic Metal Halide
- Fixture: Architectural floodlight w/ adjustable optics and asymmetric wall wash fixtures
- Quantity: Three per pier house (Davenport), Two per pier house (Rock Island)
- Aiming: As described above
- Modifications: Relocated fixtures further behind pier house and use of asymmetric fixtures
- Responses: Much stronger reaction to this scheme this time mainly due to the reduction in glare from the fixtures. The metal halide source still appeared to be the preferred favorite among the viewers responding to the mock-up.



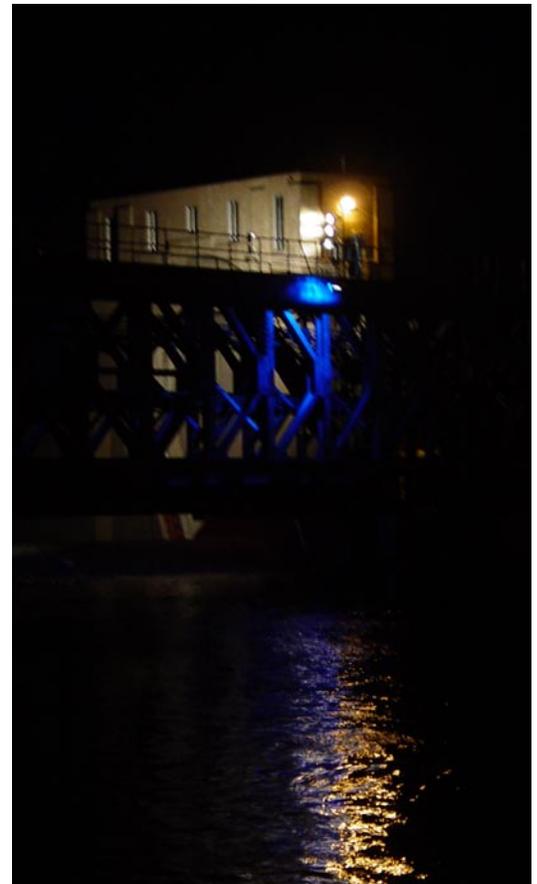
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## BLUE LIGHT

Both lighting schemes incorporated the use of floodlights with blue gels illuminating the crane bridge. This element of blue light was tested in Mock-up #1 but not during the public review process. Many respondents, however, suggested the need for a colored light to add visual interest to the structure—especially from the upstream viewing angles.

RDG utilized these blue fixtures, shining down through the deck of the crane bridge to accent the structure and provide additional visual interest. Although it was used in both Area #1 and #2 during this mock-up, the largest responses came when it was utilized on the upstream side and cantilevered out from the crane deck to illuminate the front of the structure. Images from both mock-ups are shown below demonstrating the two different mounting locations which could potentially be used.

The use of the color blue is about the only color that does not interrupt the operation of the tows and does not appear in any of the signaling mechanisms that the tow operators utilize— therefore it is a safe color to incorporate into the design.





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## **SUMMARY**

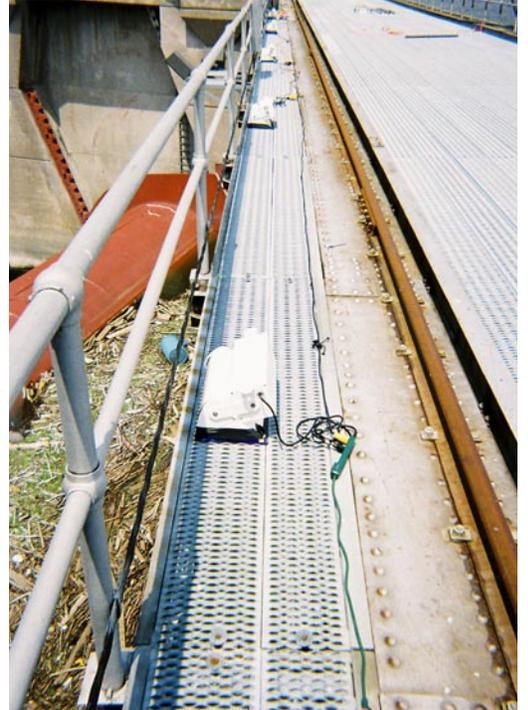
Mock-up #2 again was a success to the design team. Nearly all of the problems identified in the previous mock-up were eliminated without sacrificing illumination of any of the elements. Additional lighting was also added for specific items such as illuminating the roofs of the pier houses as suggested by reviewers. Based on reviewers input, the final design scheme was suggested:

- Source: Ceramic Metal Halide
- Fixtures: Architectural spotlights, asymmetric wall washers, blue accent wash lights
- Aiming: As described above

The fixture locations, quantities and aiming angles are documented in the following pages in both sketch and photographs from the actual mock-up.









# 04

## environmental impact

### **Impacts of Lighting on Wildlife**

The only wildlife groups that could possibly be impacted by the proposed dam lighting are insects, birds, and fish. Impacts to mammals (other than bats), reptiles, amphibians and other aquatic organisms are considered unlikely. Bats may feed on insects attracted to the lighting but this is a minor positive impact. No Federal or State Endangered, Threatened, or protected species will be impacted by this project.

Insects – The proposed metal halide luminaires will provide the desired bright, attractive, white–shaded lighting effect but metal halide lighting is also the most effective at attracting insects. Both high and low–pressure sodium luminaires attract fewer insects but do not provide the desired lighting effect. High–pressure sodium luminaires cast a yellowish color while low–pressure sodium has more of an orange coloration.

The most serious consequence of insect attraction results during the mayfly (ephemeroptera) emergence from the river in the spring. Unless the lights are left off during this period, clouds of mayflies will swarm to the lights, mate, lay eggs and die within a matter of hours, or a few days, depending on species. Piles of dead mayflies are likely to accumulate on the dam structure and create a serious maintenance problem or even a safety hazard if piled in walkway areas. Caddisflies (Trichoptera), also emerge from the river in large numbers and are attracted to lights. However, caddisflies don't normally present a serious maintenance problem or safety hazard. All forms of insects will be attracted to the lights but no other orders of insects present a problem as serious as mayflies. The insects attracted by the lights will, in turn, attract predatory insects, birds and even bats.

Birds – There is extensive documentation of the tendency for birds to move towards lights when migrating at night and their reluctance to leave the sphere of light influence when encountered. This tendency results in bird mortality from collisions with structures. Lighthouses, communication towers and tall lighted buildings are the most significant culprits. The extensive network of guy wiring on communication towers is a particularly serious problem as confused migrants circle these towers on dark stormy nights and collide with the wires.

Any lighting pointed upward or above the horizontal plane of the light fixture has the potential for attracting birds but higher structures are generally a more serious problem. The proposed dam lighting is not expected to attract migrants because the lighting is directed downward and impacts resulting from collisions are expected to be negligible. Birds will be attracted to the insects and will feed on the dead and dying insects primarily during daylight hours. Resident bird populations will be unaffected.

Fish – Artificial night lighting is believed to influence fish foraging, schooling behavior, distribution, predation risk, migration and reproduction although the degree of influence varies between species and age classes and is poorly understood. The depth of light penetration into the water is the key determinant for potential impacts to fish and other aquatic species. The light reaching the river from the proposed lighting scheme is expected to be relatively diffuse and natural turbidity will greatly inhibit light penetration into the water. The impact of the proposed artificial lighting on fish is expected to be negligible. There may be some minor, positive impact resulting from fish feeding on insects attracted to the lights.

### **Reference**

Rich, Catherine, and Longcore, Travis. 2006. Ecological Consequences of Artificial Night Lighting, Island Press, Washington, Covelo, London.



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**RESEARCH ON MAYFLIES:**

Mayflies, caddisflies and stoneflies may become pests when they swarm to lights around homes, restaurants, marinas, outdoor swimming pools, campgrounds, RV areas or any brightly lit sites.

Four factors determine the number of insects flying to a particular light.

1. **Brightness:** A 100-watt bulb will attract more insects than a 75-watt bulb.
2. **Ultraviolet Output (UV):** Different lights put out different amounts of UV light; mercury-vapor lamps and fluorescent lights have high UV outputs and are very attractive to insects.
3. **Heat Output (infrared energy):** High-powered incandescent lights put out a lot of heat. This attracts certain insects.
4. **Competition:** If the only light in the neighborhood is over a loading dock door, insects in the area will zero in on that light.

**Non-Chemical Control Summary:** The following recommendations for outdoor lighting can make a difference in certain flying pest populations.

- Replace incandescent floodlights or standard bulbs with dichrom yellow lights.
- Install UV output of bulbs with refractors or filters.
- Install decoy lights to draw insects away from the building. One recommendation (from the National Pest Control Association) is to use 100-watt, clear mercury-vapo lamps, spaced 100 feet apart and set 200 feet from the building to be protected.

Since adult mayflies are highly attracted to bright lights, it is recommended that good night light discipline be practiced, especially during the swarming season. Some communities and private residences currently shut off or reduce lighting at public places such as ball fields, parks, streets, etc. City crews post road signs warning drivers to be careful of slick roads.

These aquatic insects are attracted to lights, and when they are active it may be necessary to reduce outside lighting or switch to yellow light bulbs. These insects are least responsive to the yellow light.



## light pollution

Today, people who live in or near cities have lost much of their view of the universe. The view is often substantially diminished even for people who live in smaller towns and rural areas. The spectacular view of the night sky that our ancestors had on clear dark nights no longer exists. The great increase in the number of people living in urban areas has resulted in a rapid increase in urban sky glow due to outdoor lighting, brightening the heavens to such an extent that the only view most people have of the Milky Way or most stars is when they are well away from cities. This excess light in the sky has an adverse impact on the environment and seriously threatens to remove forever one of humanity's natural wonders our view of the universe.

This sky glow that adversely affects the environment and compromises astronomical research is called light pollution, for it is wasted light that does nothing to increase nighttime safety, utility, or security. Such wasted light only serves to produce glare, clutter, light trespass, light pollution, and wastes energy, money, and natural resources in the process.

Fortunately, viable solutions do exist for the problem of light pollution, and control programs are underway now in a number of communities. Outdoor lighting codes and ordinances are essential to the long term success of astronomical research and for the preservation of humanity's view of the universe. There is much more to be done, however, everywhere, and most people are not yet even aware of the issue. Lack of awareness, rather than resistance, is generally the biggest problem in controlling light pollution. Educating the public, government officials and staff, and lighting professionals is a major thrust of our current activities. These efforts have helped. The increase in light pollution near major observing sites is moderating. More can and must be done locally, nationally, and internationally. Amateur and professional astronomers and many others who are not astronomers are urging better outdoor lighting practices which will benefit us all.

Astronomers are not against lighting at night. They have the same needs for quality lighting as everyone else. They advocate the best possible lighting for the task, with lighting designs that take into consideration all of the relevant factors such as glare control, energy efficiency, and the need for dark skies. Fortunately, everything that is done to minimize light pollution also saves energy because the efficiency and utility of the nighttime lighting is improved. Everyone wins.

Here are some solutions that minimize light pollution without compromising in any way nighttime safety, security, or utility:

1. Use night lighting only when necessary. Turn off lights when they are not needed. Timers can be very effective. Use the correct amount of light for the need, not overkill.
2. Direct the light downward, where it is needed. The use and effective placement of well designed fixtures will achieve excellent lighting control. When possible, retrofit or replace all existing fixtures of poor quality. In all cases, the goal is to use fixtures which control the light well, minimizing glare, light trespass, light pollution, and energy usage.

All of these solutions to the problem say, really, "Do the best possible professional lighting design for the task. Include all relevant factors such as glare, light trespass, and light pollution." All the solutions needed for protecting astronomy have positive fringe benefits of maximizing the quality of the lighting, and of saving energy.

– Reprinted from the International Dark Sky Association: The Problem With Light Pollution

As a member of the IDA, RDG has strived to minimize the glare and lighting trespass in developing a lighting concept for the project. Due to the location of the dam on the river, no uplighting is even possible— which eliminates the skyglow issue. All lights will be directed below horizontal in all locations of the project.



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After mock-up #1, the need to control glare became very evident. RDG has put into place specific fixtures with tightly controlled optics and internal louvers and glare shields in order to reduce and/ or eliminate the amount of light visible from any sources. However, due to the nature of lighting an object on a horizontal plane, all glare cannot be eliminated from all viewing angles. RDG is striving to only produce glare in the least visible locations which will end up being the tree lined area on the Rock Island side and directly downstream. No other vantage points should be able to see direct glare from the fixtures.

Furthermore, the wattages and sources selected are the most efficient possible for this application. This allows the use of lower wattages while still maintaining a relatively small lamp inventory. The lighting level on the dam itself will be somewhat subdued in order to minimize the glare and visual “light bomb” which could interrupt tow traffic on the river. RDG discussed in several meetings how the intensity of the dam is not going to be designed to compete with the brightness of the casino or other neighbors that have extremely high lighting levels and glaring sources.



# 05

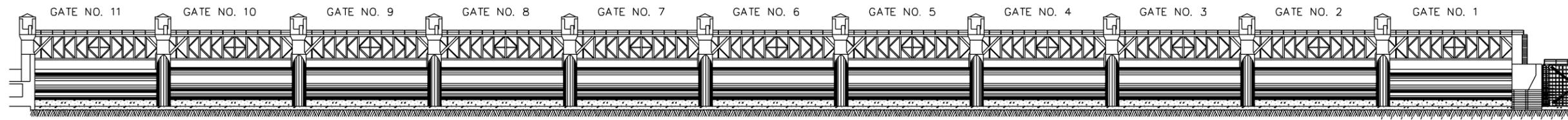
## design development plans

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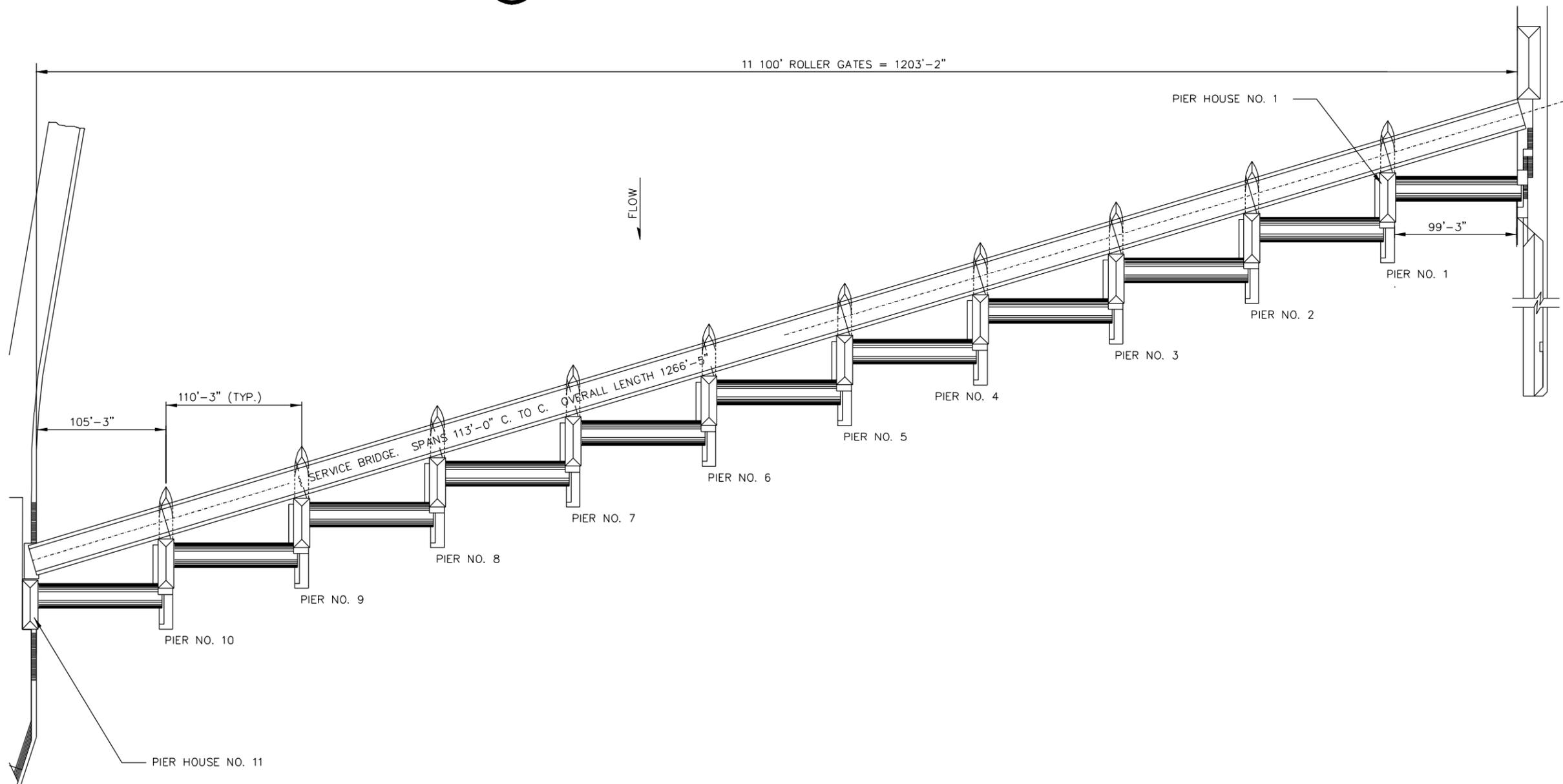
Following are three (3) separate drawings depicting the proposed lighting fixture locations on the Dam. Additional hand drawn detail references are also enclosed to further explain fixture mounting conditions and locations.



# 06

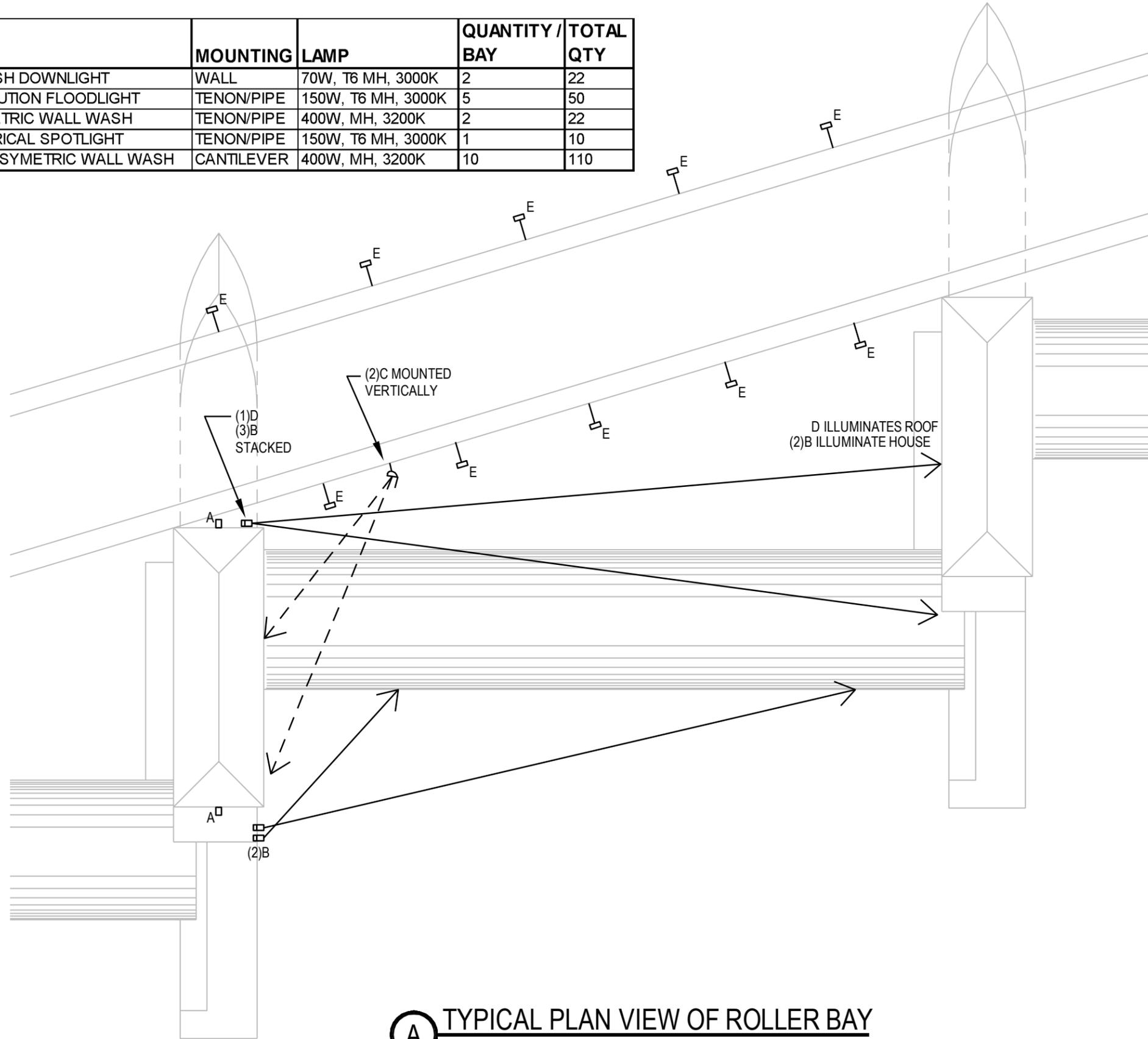


**A** OVERALL DOWNSTREAM ELEVATION  
1/96"=1'-0"



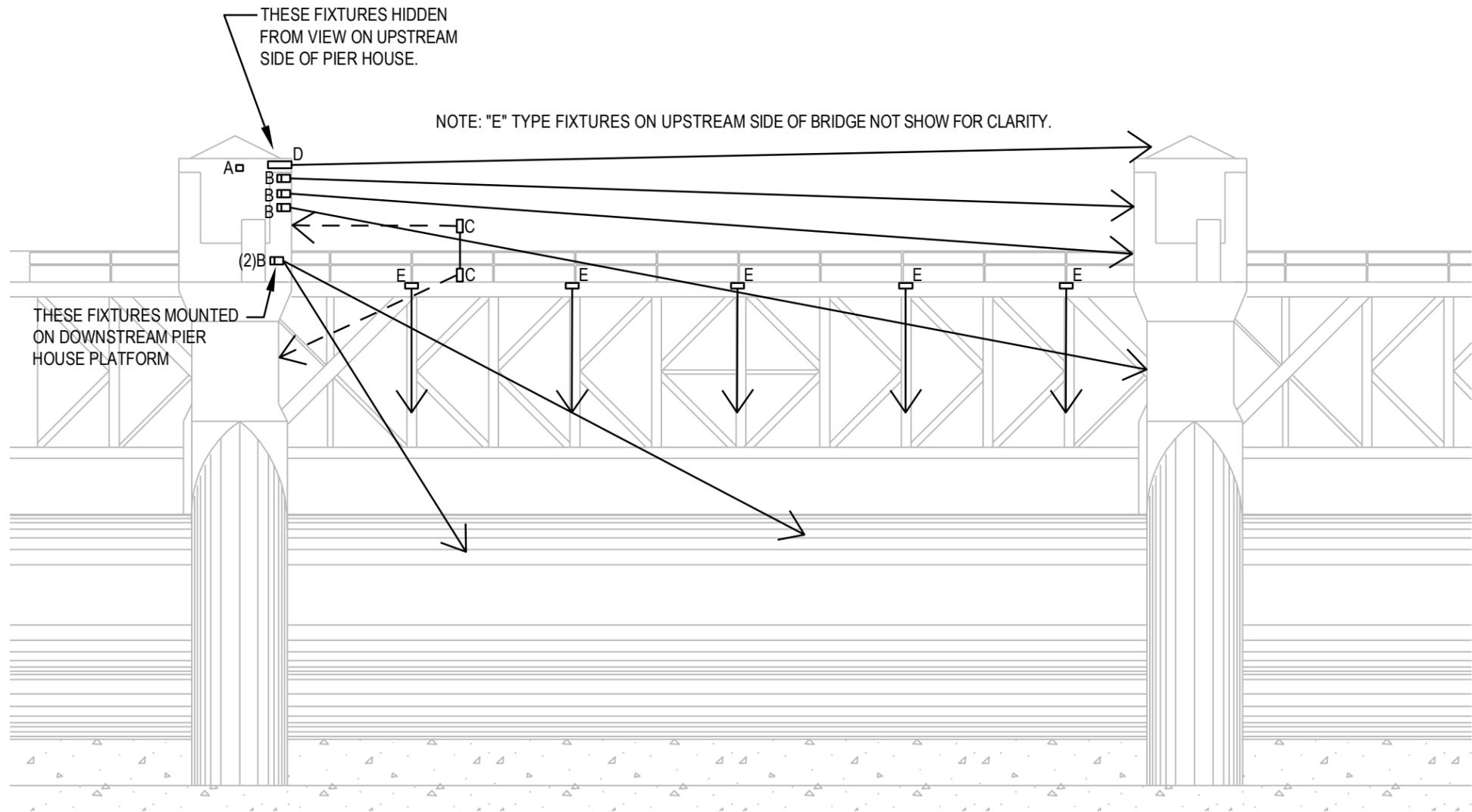
**B** OVERALL PLAN VIEW  
1/96"=1'-0"

FIXTURE TYPE	DESCRIPTION	MOUNTING	LAMP	QUANTITY / BAY	TOTAL QTY
A	FULL CUT-OFF WALL WASH DOWNLIGHT	WALL	70W, T6 MH, 3000K	2	22
B	VARIABLE BEAM DISTRIBUTION FLOODLIGHT	TENON/PIPE	150W, T6 MH, 3000K	5	50
C	VERTICAL MOUNT ASYMETRIC WALL WASH	TENON/PIPE	400W, MH, 3200K	2	22
D	EXTERIOR RATED THEATRICAL SPOTLIGHT	TENON/PIPE	150W, T6 MH, 3000K	1	10
E	CANTILEVER MOUNTED ASYMETRIC WALL WASH	CANTILEVER	400W, MH, 3200K	10	110



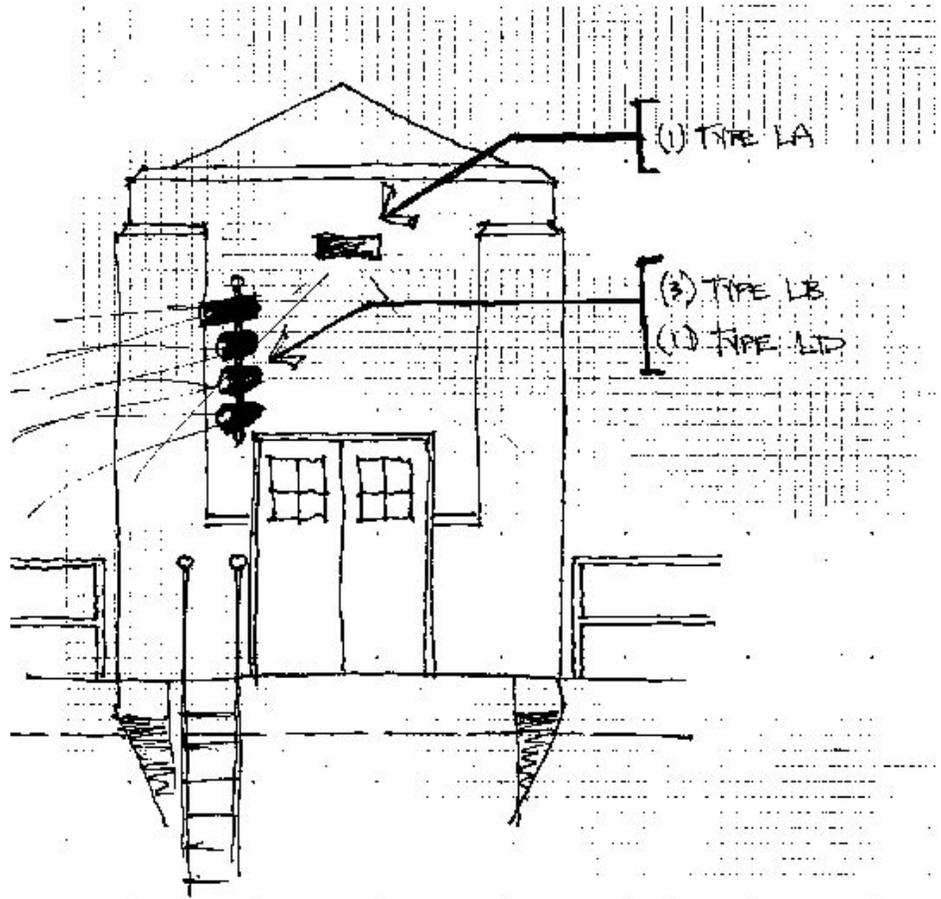
**A** TYPICAL PLAN VIEW OF ROLLER BAY  
1/16"=1'-0"

FIXTURE TYPE	DESCRIPTION	MOUNTING	LAMP	QUANTITY / BAY	TOTAL QTY
A	FULL CUT-OFF WALL WASH DOWNLIGHT	WALL	70W, T6 MH, 3000K	2	22
B	VARIABLE BEAM DISTRIBUTION FLOODLIGHT	TENON/PIPE	150W, T6 MH, 3000K	5	50
C	VERTICAL MOUNT ASYMETRIC WALL WASH	TENON/PIPE	400W, MH, 3200K	2	22
D	EXTERIOR RATED THEATRICAL SPOTLIGHT	TENON/PIPE	150W, T6 MH, 3000K	1	10
E	CANTILEVER MOUNTED ASYMETRIC WALL WASH	CANTILEVER	400W, MH, 3200K	10	110



**A** TYPICAL DOWNSTREAM ROLLER BAY ELEVATION  
1/16"=1'-0"

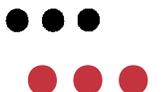
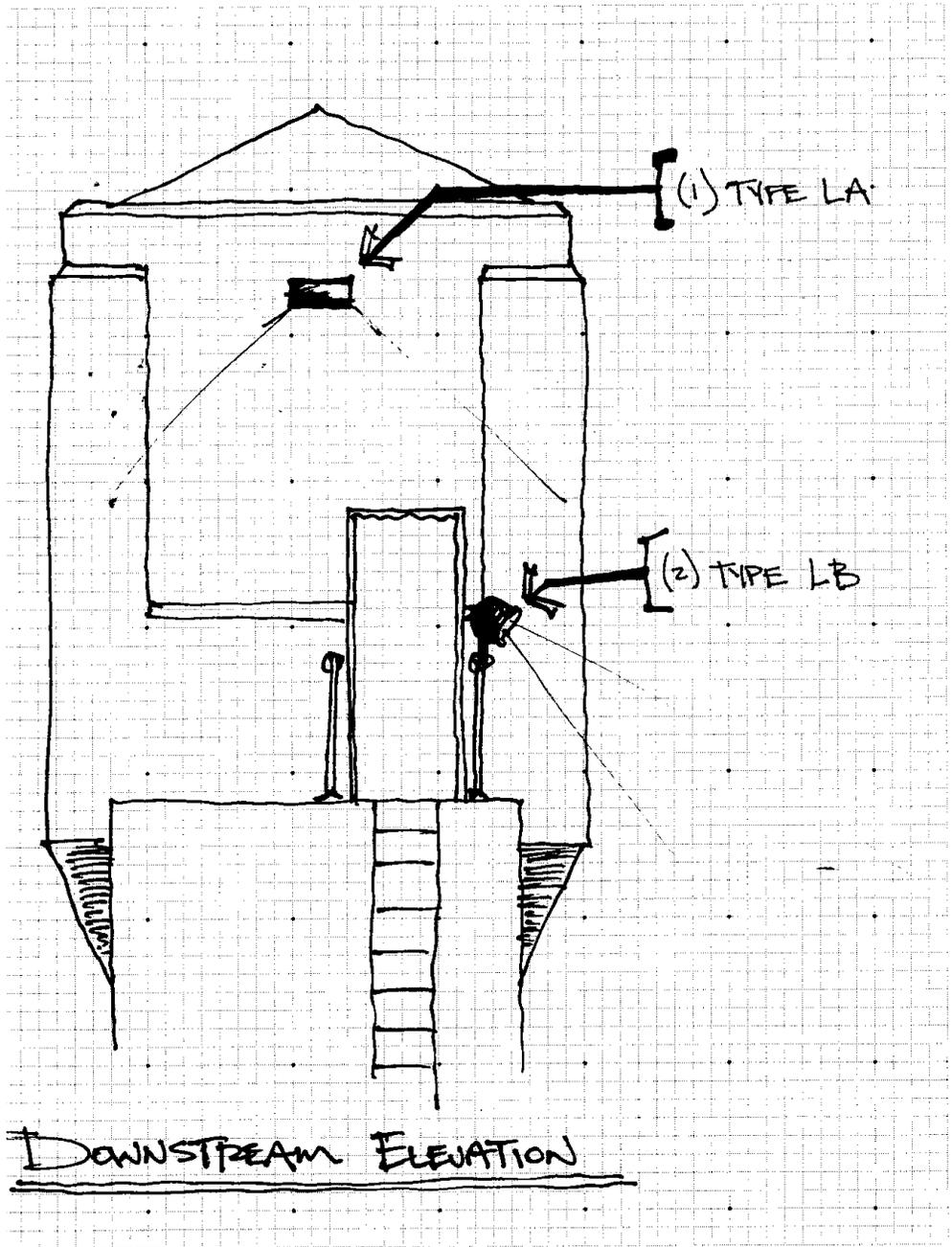
# upstream elevation



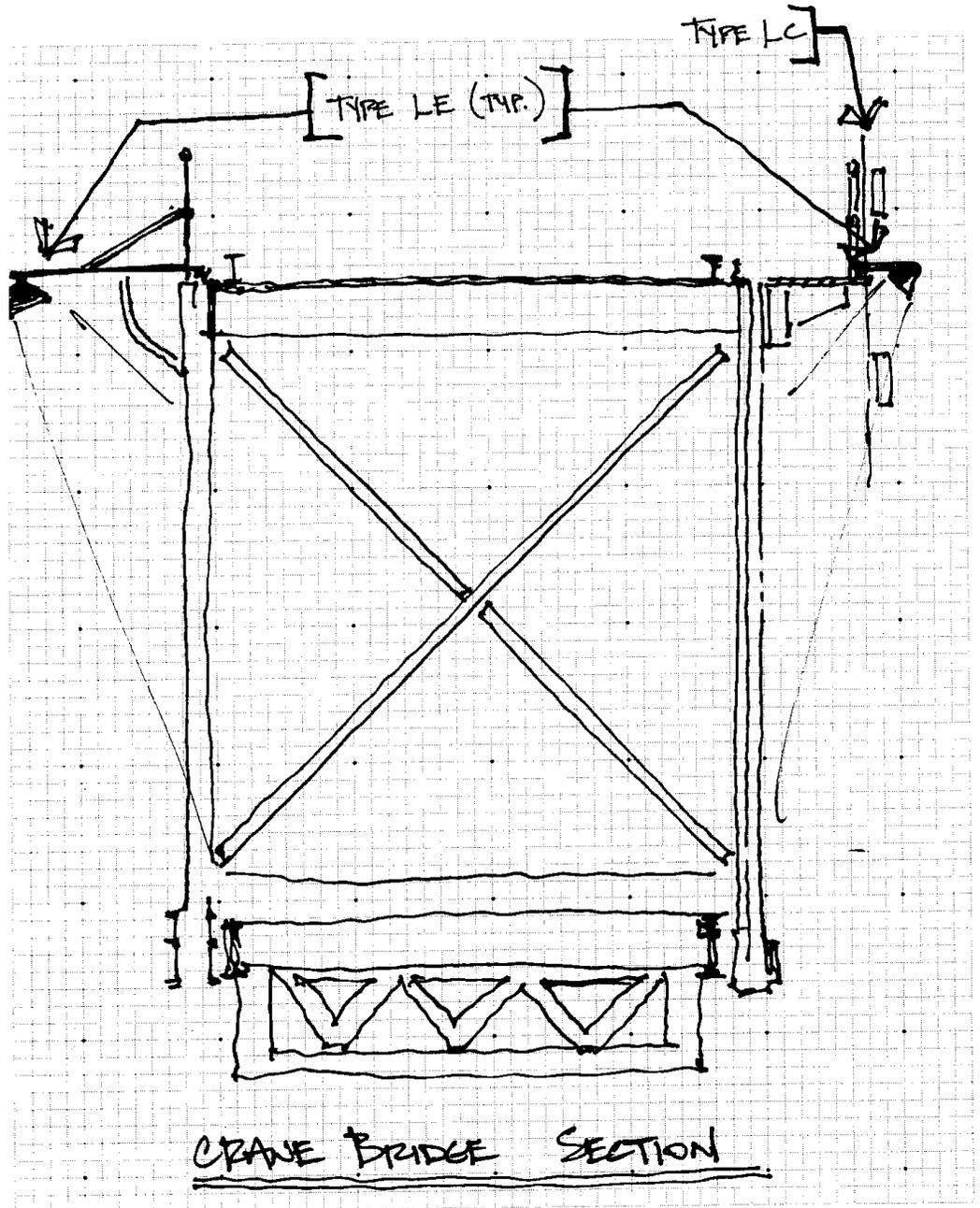
UPSTREAM ELEVATION



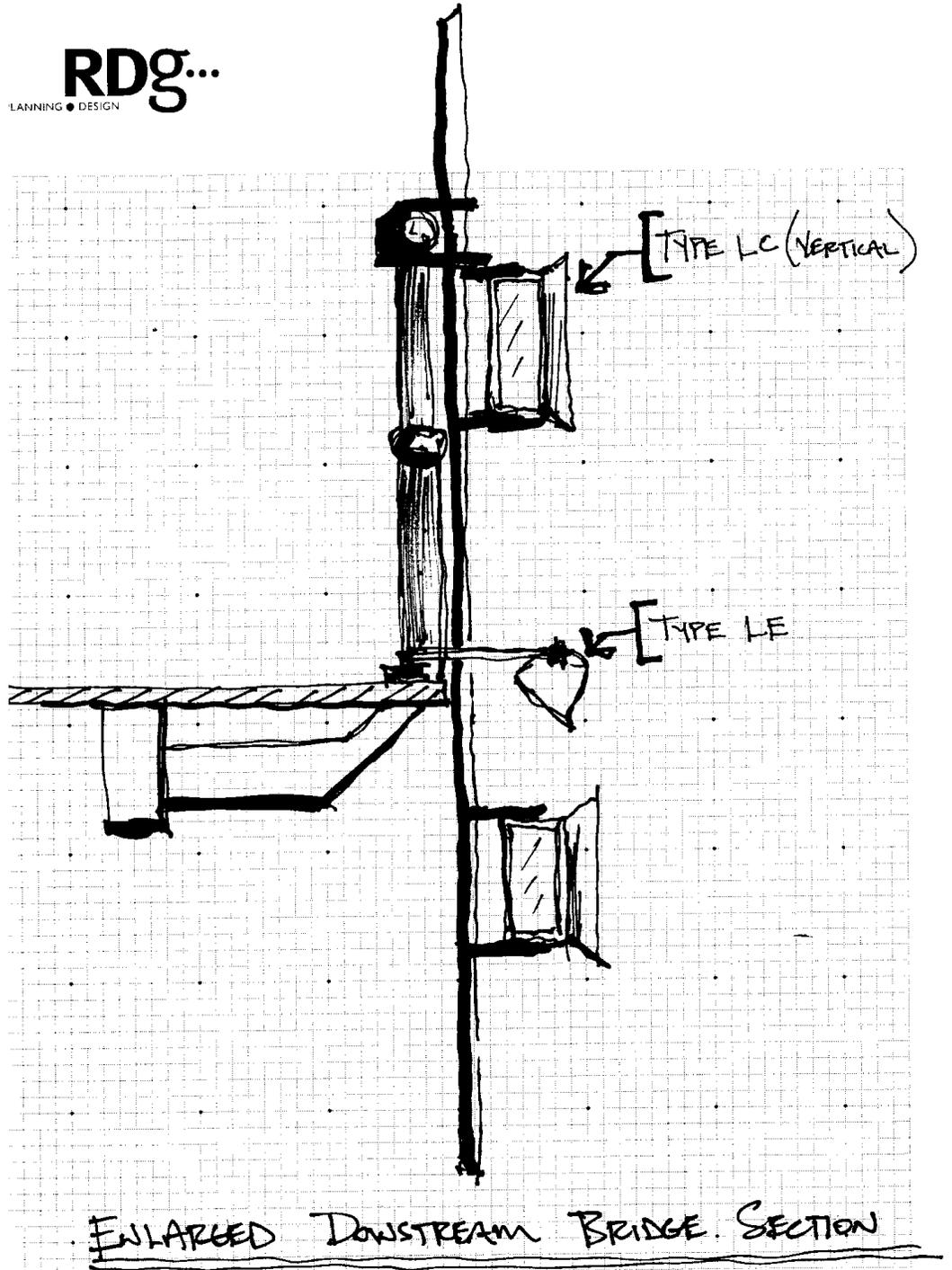
# downstream elevation



# crane bridge section



# enlarged downstream bridge section



## evaluation

The lighting design scheme reached after the two mock-ups and computer modeling results in the following:

- 1) Illumination of the Davenport side of each pier house by concealed spotlights located on the upstream side of each pier house. The aiming angle creates some glare directly into the lock, but the operators reviewing the mock-up stated that they were already in lock by the time that they noticed the glare from the fixtures. These fixtures will be labeled as Type LB on the estimate.
- 2) Illumination of the Rock Island side of each pier house by vertically oriented floodlights mounted approximately ten feet away from the pier house. These fixtures will also utilize deep glare shields to minimize the amount of glare occurring downstream. However, the mock-up fixtures did not have this shield and no tow operators complained about the glare from any of the fixtures in these locations. These fixtures will be labeled as Type LC on the estimate.
- 3) Illumination of the downstream portion of each pier house will be from a wall mounted fixture above the access door to the house. This fixture will have a full cut-off distribution so that the fixture creates no glare. These fixtures will be labeled as Type LA on the estimate.
- 4) The upstream access door of each pier house currently has a high pressure sodium wall pack located above each door. These will be replaced by a fixture with full cut-off optics in order to minimize glare and distraction from the illumination of the crane deck. These fixtures will also be labeled as Type LA on the estimate.
- 5) The downstream portion of the crane bridge will be illuminated with the cantilevered asymmetric wall wash fixtures utilizing blue filters. These fixtures will have a retractable arm to assist with maintenance. These fixtures will be labeled as Type LE on the estimate.
- 6) The upstream portion of the crane bridge will utilize similar fixtures to the blue gelled fixtures on the downstream side. Their spacing will be further apart, however. These fixtures will also be labeled as Type LE on the estimate.
- 7.) Spotlights for the roof of each pier house will be labeled as type LD in the estimate.

By breaking the lighting design into these various lighting systems, the estimate can also be somewhat broken down and prioritized once funding sources begin to be identified. Therefore a process of phasing in of the lighting can easily be undertaken if necessary.

**NOTE:**

As this report is completed, LED technology is advancing at a very rapid pace. With world economics and politics in an ever fragile situation, conserving energy is always a good choice. Current LED fixture availability for this application, however, is somewhat limited and the design team was unable to locate a reputable LED fixture and/ or manufacturer who currently produces a fixture which could be utilized on this project today.

That said, LED technology quickly advances almost daily and it should be mentioned that an LED solution in the future may be a viable option for the project. Current economics would put an LED solution at about 5 times more expensive overall– but save immense amounts of energy and maintenance on the fixtures in the future.

Once fundraising efforts are nearing completion, RDG suggests that the LED option be re-visited in the future.



## lighting fixture data

**NOTES:**

1) Fixtures represented here constitute a basis for design and do not necessarily represent the actual fixtures which will be proposed and specified in the Contract Documents. These fixtures were utilized for one or both of the mock-ups and represent the designer’s comfort level with the manufacturer and the available lamping and distributions required for the lighting design.

2) Cutsheets for each of the manufacturer’s products represented here are contained on the following pages. Furthermore, the lighting designer has acquired budget pricing from the manufacturer’s sales representatives in order to establish a budget for the project. Variations on the pricing represented here will occur once they are introduced into a bidding climate.

<b>TYPE</b>	<b>DESCRIPTION</b>	<b>MANUFACTURERS</b>
LA	Surface mounted wall pack style fixture w/ metal halide lamping and full cut-off optical design. Mount to upstream and downstream exterior walls of each pier house above doors.	McPHILBEN LITHONIA LUMARK
LB	Pipe mounted architectural floodlight w/ variable beam distribution and shielded optics. Integral ballast. Internal louver. Tempered glass lens. Tool-less relamping. Lockable aiming mechanism on fixture yoke.	QUALITY BEGA AAL
LC	Vertical mounted metal halide architectural wash light w/ asymmetric distribution optic. Custom, adjustable glare shield. Two-lamp fixture cross-section.	ELLIPTIPAR WINONA
LD	Pipe mounted exterior rated theatrical framing projector with variable optic and adjustable shutter system.	ALTMAN ETC/ TEMPEST
LE	Cantilevered metal halide wash light w/ asymmetric forward throw distribution. Internal blue glass lens filter. Integral ballast. Custom, adjustable cantilever for “swing back” maintenance. 2-lamp fixture.	ELLIPTIPAR WINONA

\* All fixtures specified in the final design shall be UL listed for exterior, wet applications and carry an ingress protection rating of at least IP65 to minimize bug and dust penetration into the fixture.

\*\* Paint finish on all fixtures will be determined later but will need to comply with Corps requirements.



## electrical narrative

The following is a narrative of the electrical design which will be used as a basis for estimating:

- 1.) The dam consist of 11 Pier houses and 11 roller gates with Number 1 Pier house and gate on the south side of the river. Existing electrical services to the pier houses is also from the south side of the river.
- 2.) There is an existing 400A, 480V, 3 phase service at each Pier house. The only load on this is a 50hp motor with an FLA rating of 87 amps per the electrician at the site. The 400A feeder lands on a 400A breaker in each pier house and the conducting is 600MCM cable.
- 3.) For the new lighting scheme on the bridge there will be 4 new lighting panels and lighting contactor locations;
  - a. Pier house #2/ Panel L2 and Lighting Contactor LC2
  - b. Pier house #5/ Panel L5 and Lighting Contactor LC5
  - c. Pier house #8/ Panel L8 and Lighting Contactor LC8
  - d. Pier house #10/ Panel L10 and Lighting Contactor LC10
- 4.) Each of the above Pier house locations will serve the following lighting;
  - a. Pier house #2 shall serve Gates #1 – #3 and Pier house Lights #1 – #3
  - b. Pier house #5 shall serve Gates #4 – #6 and Pier house Lights #4 – #6
  - c. Pier house #8 shall serve Gates #7 – #9 and Pier house Lights #7 – #9
  - d. Pier house #10 shall serve Gates #10 – #11 and Pier house Lights #10 – #11
- 5.) The lighting will all be operated at 208V, 1 phase.
- 6.) All conduits shall be RGS.
- 7.) The following shall be provided and installed by contractor at each of the above four Pier houses;
  - a. On the load side of the existing 400A breaker provide an IIsco Insulated Terminal Block in a NEMA 3R enclosure with enough terminals to land the following wiring;
    - i. Incoming 600MCM cable
    - ii. Existing wiring to 50 hp motor
    - iii. Provide 3 #6 in a 1" RGS conduit to new disconnect, (see below) serving new dry type step down transformer for lighting.
  - b. New 60A, 600V, 3 pole, Heavy Duty fusible disconnect switch in a NEMA 3R enclosure for service to step down transformer. Fuse at 40A.
  - c. New Dry Type step down transformer, 30kVA, 480V, 3 phase, 3 wire, Pri./ 208Y/120V, 3 phase, 4 wire, Sec. Transformer to be wall mounted in NEMA 3R enclosure. Provide a #4 insulated copper THWN in a ¾" conduit to suitable ground for grounded neutral in transformer.
  - d. New 30A Light Duty fusible disconnect in a NEMA 3R enclosure for non-switched branch circuit to lighting contactor and time clock. Fuse at 3 amps. Provide 3 #12 in a ¾" conduit to lighting contactor from load terminals of new transformer above.
  - e. New 100A, 208Y, 120V, 3 phase, 4 wire, lighting panelboard as shown in attached panel schedules for each associated pier house. Panels shall be in a NEMA 3R enclosure. Lighting circuit requirements from panels to light fixtures are shown in associated panel schedules. The feeder to the panel from the transformer shall be 4 – #2 with a #6 grd. In a 1.5" conduit.
  - f. New 100A, 3 pole, electrically held, lighting contactor in a NEMA 3R enclosure.



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Provide HOA switch on cover of contactor. This contactor shall switch the feeder circuit to the associated lighting panel above. The coil of the contactor shall be controlled as stated in the lighting control description below and powered from item d above.

- 8.) The lighting for the dam shall all be controlled from a common time clock at Pier house #2. There shall also be a photocell over ride for tows to turn off the lighting if desired. The normal mode of operation will be by time clock. Time clock to be an Intermatic ET70215C microprocessor based so it will adjust for daylight savings time. The contact output from the time clock shall power an interposing ice cube relay with contact outputs into the other contactors at the other pier houses. Also at Pier house #2 will be the photocell over ride that will provide a contact in series with the time clock to turn off the lights if the tugboat operator desires. This photocell would be the standard locking type with a screw in base located on the dam a distance away from the lighting to not turn off due to lighting levels above the off footcandle level. The photocell will energize a time delay relay to allow for up to 15 minutes before the time clock would then turn the lights back on. The exact location of the photocell and time clock will be determined in the field.

EXCEL PANEL SCHEDULES FOLLOW THIS PAGE



<b>PANEL NAME:</b>	<b>L2</b>		<b>BUS RATING :</b>	100 A	<b>MOUNTING :</b>	SURFACE
<b>SERVICE VOLTAGE:</b>	<b>208Y/120 VAC, 3 PH - 4 W</b>	<b>60 HZ</b>	<b>MAIN BREAKER :</b>	100 A	<b>MULTI-LUG :</b>	N/A
<b>SOURCE NAME:</b>	<b>2T</b>		<b>MINIMUM AIC :</b>	14,000	<b>IG BUS :</b>	NO
<b>SOURCE LOCATION:</b>	<b>PIERHOUSE 2</b>		<b>NEMA TYPE :</b>	3R	<b>TVSS :</b>	YES
<b>SERVICE ENTRANCE :</b>			<b>200% NEUTRAL :</b>	NO		

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	PHASE (KVA)			LOAD (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #1 UPSTREAM LIGHTS	20A/2P	1.20			1.20				1.00
3					1.20		1.20				1.00
5	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #1 DOWNSTREAM LIGHTS	20A/2P			1.20	1.20				1.00
7				1.20			1.20				1.00
9	2 # 8 W/#8 GND.1" C	PIERHOUSE #1 LIGHTING	20A/2P		0.85		0.85				1.00
11						0.85	0.85				1.00
13	2 # 8 W/#8 GND.1" C	GATE #1 LIGHTING	20A/2P	0.20			0.20				1.00
15					0.20		0.20				1.00
17	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #3 UPSTREAM LIGHTS	20A/2P			1.20	1.20				1.00
19				1.20			1.20				1.00
21	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #3 DOWNSTREAM LIGHTS	20A/2P		1.20		1.20				1.00
23						1.20	1.20				1.00
25	2 # 8 W/#8 GND.1" C	PIERHOUSE #3 LIGHTING	20A/2P	0.85			0.85				1.00
27					0.85		0.85				1.00
29	2 # 8 W/#8 GND.1" C	GATE #3 LIGHTING	20A/2P			0.20	0.20				1.00
31				0.20			0.20				1.00
33					0.00						1.00
35						0.00					1.00
37				0.00							1.00
39					0.00						1.00
41						0.00					1.00
2	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #2 UPSTREAM LIGHTS	20A/2P	1.20			1.20				1.00
4					1.20		1.20				1.00
6	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #2 DOWNSTREAM LIGHTS	20A/2P			1.20	1.20				1.00
8				1.20			1.20				1.00
10	2 # 8 W/#8 GND.1" C	PIERHOUSE #2 LIGHTING	20A/2P		0.85		0.85				1.00
12						0.85	0.85				1.00
14	2 # 8 W/#8 GND.1" C	GATE #2 LIGHTING	20A/2P	0.20			0.20				1.00
16					0.20		0.20				1.00
18		TVSS	60A/3P			0.00					1.00
20				0.00							1.00
22					0.00						1.00
24						0.00					1.00
26				0.00							1.00
28					0.00						1.00
30						0.00					1.00
32				0.00							1.00
34					0.00						1.00
36						0.00					1.00
38				0.00							1.00
40					0.00						1.00
42						0.00					1.00

LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	KVA / PH			MINIMUM PANEL RATINGS			
			7.5	6.6	6.7	LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)
LIGHTING:	20.7	20.7	62	55	56	22.4	1.25	27.9	78
RECEPTACLE:	0.0	0.0							
MOTOR:	0.0	0.0							
EQUIPMENT:	0.0	0.0							
<b>TOTALS:</b>	<b>20.7</b>	<b>20.7</b>							

<b>PANEL NAME:</b>	<b>L5</b>		BUS RATING :	100 A	MOUNTING :	SURFACE
<b>SERVICE VOLTAGE:</b>	<b>208Y/120 VAC, 3 PH - 4 W</b>	<b>60 HZ</b>	MAIN BREAKER :	100 A	MULTI-LUG :	N/A
<b>SOURCE NAME:</b>	<b>5T</b>		MINIMUM AIC :	14,000	IG BUS :	NO
<b>SOURCE LOCATION:</b>	<b>PIERHOUSE 5</b>		NEMA TYPE :	3R	200% NEUTRAL :	NO
			SERVICE ENTRANCE :	NO	TVSS :	YES
			200% NEUTRAL :	NO		

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	PHASE (KVA)			LOAD (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #4 UPSTREAM LIGHTS	20A/2P	1.20			1.20				1.00
3					1.20		1.20				1.00
5	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #4 DOWNSTREAM LIGHTS	20A/2P			1.20	1.20				1.00
7				1.20			1.20				1.00
9	2 # 8 W/#8 GND.1" C	PIERHOUSE #4 LIGHTING	20A/2P		0.85		0.85				1.00
11						0.85	0.85				1.00
13	2 # 8 W/#8 GND.1" C	GATE #4 LIGHTING	20A/2P	0.20			0.20				1.00
15					0.20		0.20				1.00
17	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #6 UPSTREAM LIGHTS	20A/2P			1.20	1.20				1.00
19				1.20			1.20				1.00
21	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #6 DOWNSTREAM LIGHTS	20A/2P		1.20		1.20				1.00
23						1.20	1.20				1.00
25	2 # 8 W/#8 GND.1" C	PIERHOUSE #6 LIGHTING	20A/2P	0.85			0.85				1.00
27					0.85		0.85				1.00
29	2 # 8 W/#8 GND.1" C	GATE #6 LIGHTING	20A/2P			0.20	0.20				1.00
31				0.20			0.20				1.00
33					0.00						1.00
35						0.00					1.00
37				0.00							1.00
39					0.00						1.00
41						0.00					1.00

2	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #5 UPSTREAM LIGHTS	20A/2P	1.20			1.20				1.00
4					1.20		1.20				1.00
6	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #5 DOWNSTREAM LIGHTS	20A/2P			1.20	1.20				1.00
8				1.20			1.20				1.00
10	2 # 8 W/#8 GND.1" C	PIERHOUSE #5 LIGHTING	20A/2P		0.85		0.85				1.00
12						0.85	0.85				1.00
14	2 # 8 W/#8 GND.1" C	GATE #5 LIGHTING	20A/2P	0.20			0.20				1.00
16					0.20		0.20				1.00
18		TVSS	60A/3P			0.00					1.00
20				0.00							1.00
22					0.00						1.00
24						0.00					1.00
26				0.00							1.00
28					0.00						1.00
30						0.00					1.00
32				0.00							1.00
34					0.00						1.00
36						0.00					1.00
38				0.00							1.00
40					0.00						1.00
42						0.00					1.00

LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	KVA / PH			MINIMUM PANEL RATINGS			
			A	B	C	LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)
LIGHTING:	20.7	20.7	7.5	6.6	6.7	22.4	1.25	27.9	78
RECEPTACLE:	0.0	0.0	62	55	56				
MOTOR:	0.0	0.0							
EQUIPMENT:	0.0	0.0							
<b>TOTALS:</b>	<b>20.7</b>	<b>20.7</b>							

<b>PANEL NAME:</b>	<b>L8</b>		BUS RATING :	100 A	MOUNTING :	SURFACE
<b>SERVICE VOLTAGE:</b>	<b>208Y/120 VAC, 3 PH - 4 W</b>	<b>60 HZ</b>	MAIN BREAKER :	100 A	MULTI-LUG :	N/A
<b>SOURCE NAME:</b>	<b>8T</b>		MINIMUM AIC :	14,000	IG BUS :	NO
<b>SOURCE LOCATION:</b>	<b>PIERHOUSE 8</b>		NEMA TYPE :	3R	TVSS :	YES
			SERVICE ENTRANCE :	NO		
			200% NEUTRAL :	NO		

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	PHASE (KVA)			LOAD (KVA)				LOAD FACTOR	
				A	B	C	LTG	RCPT	MTR	EQPT		
1	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #7 UPSTREAM LIGHTS	20A/2P	1.20			1.20					1.00
3					1.20		1.20					1.00
5	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #7 DOWNSTREAM LIGHTS	20A/2P			1.20	1.20					1.00
7				1.20			1.20					1.00
9	2 # 8 W/#8 GND.1" C	PIERHOUSE #7 LIGHTING	20A/2P		0.85		0.85					1.00
11						0.85	0.85					1.00
13	2 # 8 W/#8 GND.1" C	GATE #7 LIGHTING	20A/2P	0.20			0.20					1.00
15					0.20		0.20					1.00
17	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #9 UPSTREAM LIGHTS	20A/2P			1.20	1.20					1.00
19				1.20			1.20					1.00
21	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #9 DOWNSTREAM LIGHTS	20A/2P		1.20		1.20					1.00
23						1.20	1.20					1.00
25	2 # 8 W/#8 GND.1" C	PIERHOUSE #9 LIGHTING	20A/2P	0.85			0.85					1.00
27					0.85		0.85					1.00
29	2 # 8 W/#8 GND.1" C	GATE #9 LIGHTING	20A/2P	0.20			0.20					1.00
31				0.20			0.20					1.00
33					0.00							1.00
35						0.00						1.00
37				0.00								1.00
39					0.00							1.00
41						0.00						1.00

2	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #8 UPSTREAM LIGHTS	20A/2P	1.20			1.20					1.00
4					1.20		1.20					1.00
6	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #8 DOWNSTREAM LIGHTS	20A/2P			1.20	1.20					1.00
8				1.20			1.20					1.00
10	2 # 8 W/#8 GND.1" C	PIERHOUSE #8 LIGHTING	20A/2P		0.85		0.85					1.00
12						0.85	0.85					1.00
14	2 # 8 W/#8 GND.1" C	GATE #8 LIGHTING	20A/2P	0.20			0.20					1.00
16					0.20		0.20					1.00
18		TVSS	60A/3P			0.00						1.00
20				0.00								1.00
22					0.00							1.00
24						0.00						1.00
26				0.00								1.00
28					0.00							1.00
30						0.00						1.00
32				0.00								1.00
34					0.00							1.00
36						0.00						1.00
38				0.00								1.00
40					0.00							1.00
42						0.00						1.00

LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	KVA / PH			MINIMUM PANEL RATINGS			
			7.5	6.6	6.7	LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)
LIGHTING:	20.7	20.7	62	55	56	22.4	1.25	27.9	78
RECEPTACLE:	0.0	0.0							
MOTOR:	0.0	0.0							
EQUIPMENT:	0.0	0.0							
<b>TOTALS:</b>	<b>20.7</b>	<b>20.7</b>							

<b>PANEL NAME:</b>	<b>L10</b>		BUS RATING :	100 A	MOUNTING :	SURFACE
<b>SERVICE VOLTAGE:</b>	<b>208Y/120 VAC, 3 PH - 4 W</b>	<b>60 HZ</b>	MAIN BREAKER :	100 A	MULTI-LUG :	N/A
<b>SOURCE NAME:</b>	<b>10T</b>		MINIMUM AIC :	14,000	IG BUS :	NO
<b>SOURCE LOCATION:</b>	<b>PIERHOUSE 10</b>		NEMA TYPE :	3R	200% NEUTRAL :	NO
			SERVICE ENTRANCE :	NO	TVSS :	YES
			200% NEUTRAL :	NO		

BRKR NO.	CIRCUIT DESCRIPTION	LOAD DESCRIPTION	BRKR RTG	PHASE (KVA)			LOAD (KVA)				LOAD FACTOR
				A	B	C	LTG	RCPT	MTR	EQPT	
1	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #10 UPSTREAM LIGHTS	20A/2P	1.20			1.20				1.00
3					1.20		1.20				1.00
5	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #10 DOWNSTREAM LIGHTS	20A/2P			1.20	1.20				1.00
7				1.20			1.20				1.00
9	2 # 8 W/#8 GND.1" C	PIERHOUSE #10 LIGHTING	20A/2P		0.85		0.85				1.00
11						0.85	0.85				1.00
13	2 # 8 W/#8 GND.1" C	GATE #10 LIGHTING	20A/2P	0.20			0.20				1.00
15					0.20		0.20				1.00
17						0.00					1.00
19				0.00							1.00
21					0.00						1.00
23						0.00					1.00
25				0.00							1.00
27					0.00						1.00
29						0.00					1.00
31				0.00							1.00
33					0.00						1.00
35						0.00					1.00
37				0.00							1.00
39					0.00						1.00
41						0.00					1.00
2	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #11 UPSTREAM LIGHTS	20A/2P	1.20			1.20				1.00
4					1.20		1.20				1.00
6	2 # 8 W/#8 GND.1" C	BRIDGE AT GATE #11 DOWNSTREAM LIGHTS	20A/2P			1.20	1.20				1.00
8				1.20			1.20				1.00
10	2 # 8 W/#8 GND.1" C	PIERHOUSE #11 LIGHTING	20A/2P		0.85		0.85				1.00
12						0.85	0.85				1.00
14	2 # 8 W/#8 GND.1" C	GATE #11 LIGHTING	20A/2P	0.20			0.20				1.00
16					0.20		0.20				1.00
18		TVSS	60A/3P			0.00					1.00
20				0.00							1.00
22					0.00						1.00
24						0.00					1.00
26				0.00							1.00
28					0.00						1.00
30						0.00					1.00
32				0.00							1.00
34					0.00						1.00
36						0.00					1.00
38				0.00							1.00
40					0.00						1.00
42						0.00					1.00

LOAD TYPE	CONNECTED (KVA)	DEMAND (KVA)	KVA / PH	5.2	4.5	4.1
			AMPS / PH	43	37	34
LIGHTING:	13.8	13.8				
RECEPTACLE:	0.0	0.0				
MOTOR:	0.0	0.0				
EQUIPMENT:	0.0	0.0				
<b>TOTALS:</b>	<b>13.8</b>	<b>13.8</b>				

MINIMUM PANEL RATINGS			
LOAD (KVA)	DEMAND FACTOR	RATED (KVA)	AMPACITY (AMPS)
15.6	1.25	19.5	54

## maintenance

Careful consideration has been given to the maintenance of the proposed lighting system.

**ACCESS/ MAINTENANCE:**

All fixtures will be accessible from either the crane deck or the deck on the downstream portion of each pier house. No fixtures will be located below the deck or on any other portion of the dam requiring the use of the crane and basket for access. Fixtures illuminating the sides of the crane bridge will be on custom cantilevers that can be manually raised back up to the crane deck for maintenance and re-lamping.

**ENVIRONMENTAL:**

Assuming that insects are attracted to the luminaires and die in proximity to the fixtures they will tend to fall directly down into the water below the dam. There are no fixtures aimed above horizontal therefore no collection of bugs or bird droppings should occur on lenses which could cause the fixtures to overheat. The potential for spider webs around the fixtures is a possibility and it will be recommended that periodic cleaning of the fixtures with either a pressure washer or manual brush be completed to avoid a large build up of webs and/ or nests.

**LAMPS:**

The following table illustrates the proposed lamp types, replacement costs and average life expectancy of each. Based on this information, a long term maintenance schedule can be budgeted for and anticipated— although pre-mature lamp failures, ballast failures and other mechanical problems may occur that do not match this schedule. In addition, routine maintenance and cleaning may be required depending on dust and dirt build up on the fixture lenses over time.

LAMP TYPE	DESCRIPTION	QTY	REPLACEMENT COST	AVERAGE LAMP LIFE	LIFE CYCLE COST*
L01	70w T6 Metal Halide, 3000k, G12 Base	22	\$44/ each	12– 15,000 hrs.	\$220
L02	150w T6 Metal Halide, 3000k, G12 Base	314	\$50/ each	12– 15,000 hrs.	\$3925

*\* Since lamps have a life expectancy of greater than one year, the life cycle cost takes the lamp replacement cost and divides it over the life of the lamp. This amount is useful in budget purposes as it should be set aside annually to cover the cost of the lamp replacement once its end-of-life occurs. The life cycle cost assumes dusk to dawn operation of the lamps. Illuminating the dam by extinguishing the lights at 2:00am for example, would extend the lamp life and decrease the life cycle cost. The one time cost to replace all of the lamps on the dam would be approximately \$16,700 which will occur approximately once every four years. (Note that this does not include labor)*

*It is recommended that the maintenance of the dam be completed in “group re-lamping” cycles. By re-lamping all of the fixtures at once— even before the lamps have burned out, all of the fixtures should cycle together and not become “nuisance outages” requiring a weekly check and maintenance cycle. Considering the cost for personnel to change lamps, a group re-lamping strategy saves money over time.*

\* Ballast warranty is 5 years— parts and labor. Expected ballast life is 10–15 years.

**ELECTRICAL COST:**

The estimated electrical costs shown below assume an electric rate of \$0.05 per kilowatt hour. The various amounts for costs are based on varying hours of operation on average for the year. Although a dusk-to-dawn illumination of the dam may seem aesthetically pleasing, the main viewing times are more likely from dusk to midnight or at the latest 2:00am. By extinguishing the lighting earlier in the evening, lamp life and electrical costs will be greatly affected.

- Average of 7 hours per night (2:00am curfew) = \$9,085 annual electric bill
- Average of 5 hours per night (Midnight curfew) = \$6,489 annual electric bill
- Average of 12 hours per night (dusk-to-dawn) = \$15,574 annual electric bill





ESTIMATE

The following lighting fixture quantities and their associated costs were collected from quotes from local lighting manufacturer’s sales reps. Additional costs for labor, wire conduit and other electrical infrastructure were assembled with the assistance of Davenport Electric based on the current design model provided to them by the design team.

With the volatility of the world economic conditions, prices for steel conduit and copper wire are escalating almost daily. No escalation factor has been applied to this estimate due to the fact that no specific construction time table has been created without the funds having been secured to date.

Following the overall estimate, RDG has created a list of “Phases” of implementing the lighting for lowering the initial cost of the project. Understanding again, however, that the more time elapses between installation phases, the more the cost will increase potentially. Additionally, phasing will require additional labor cost for starting and stopping work due to having to re–secure lifts, tools, equipment, and their associated man–power.

ITEM	DESCRIPTION	QTY	TOTAL COST
1	Lighting Fixture Type LA– SECURITY LIGHT ON PIER HOUSE (2 per house)	22	\$ 4,400
2	Lighting Fixture Type LB– FLOODLIGHT FOR DAVENPORT SIDE OF PIER HOUSE	44	\$ 35,200
3	Lighting Fixture Type LC– FLOODLIGHT FOR RI SIDE OF PIER HOUSE	22	\$ 22,000
4	Lighting Fixture Type LD– SPOTLIGHT FOR PIER HOUSE ROOF	10	\$ 12,000
5	Lighting Fixture Type LE– FLOODLIGHTS w/ BLUE GELS FOR CRANE BRIDGE	110	\$ 198,000
6	<b>TOTAL LIGHTING FIXTURE COST:</b>		<b>\$ 271,600</b>
7	ELECTRICAL MATERIALS (conduit, wire, fittings, etc.)	LOT	\$ 54,318
8	ELECTRICAL MATERIALS (panels, switchgear, disconnects)	LOT	\$ 4,348
9	TOTAL LABOR		\$ 160,016
10	DIRECT JOB EXPENSES (LIFT RENTAL, PERMITS, ETC.)		\$ 2,040
11	OVERHEAD (7%)		\$ 34,462
12	PROFIT (8%)		\$ 39,385
13	<b>TOTAL ELECTRICAL COST:</b>		<b>\$ 294,569</b>
15	<b>TOTAL PROJECT COST:</b>		<b>\$ 566,169</b>
16	ADDITIONAL ITEMS		
17	CONTINGENCY– 15%		\$ 79,182
18	ADD FOR STAINLESS STEEL BRACKETS, ANCHORS, STRAPS, SUPPORTS		\$ 20,000
19	ADD FOR EPOXY PAINT ALL CONDUIT AND FITTINGS		\$ 25,000
20	ADD FOR BOAT RESCUE (OSHA)		\$ 10,000
21	ADD FOR OVERTIME LABOR FOR AIMING AT NIGHT		\$ 10,000
22	LIGHTING DESIGN AND ENGINEERING FEES		\$ 40,000
23			
24	<b>TOTAL ESTIMATE:</b>		<b>\$ 750,346</b>

Potential phasing options to reduce initial cost expense:

PHASE 1: Install new light fixtures (LA) on pier houses and electrical Panel L2, L5, L8, L10: \$ 64,809  
 (design and engineering fees for this phase only)

PHASE 2: Install light fixtures for lighting pier houses (Type LB, LC, LD): \$ 242,840

PHASE 3: Install light fixtures for lighting crane bridge with blue light (Type LE): \$488,092

Other alternative ways to “break up” the project are possible. It would be advisable to discuss cost savings options with the Corps and an electrical contractor at the table to determine the most cost effective methods for material storage, transportation onto the dam and general installation.

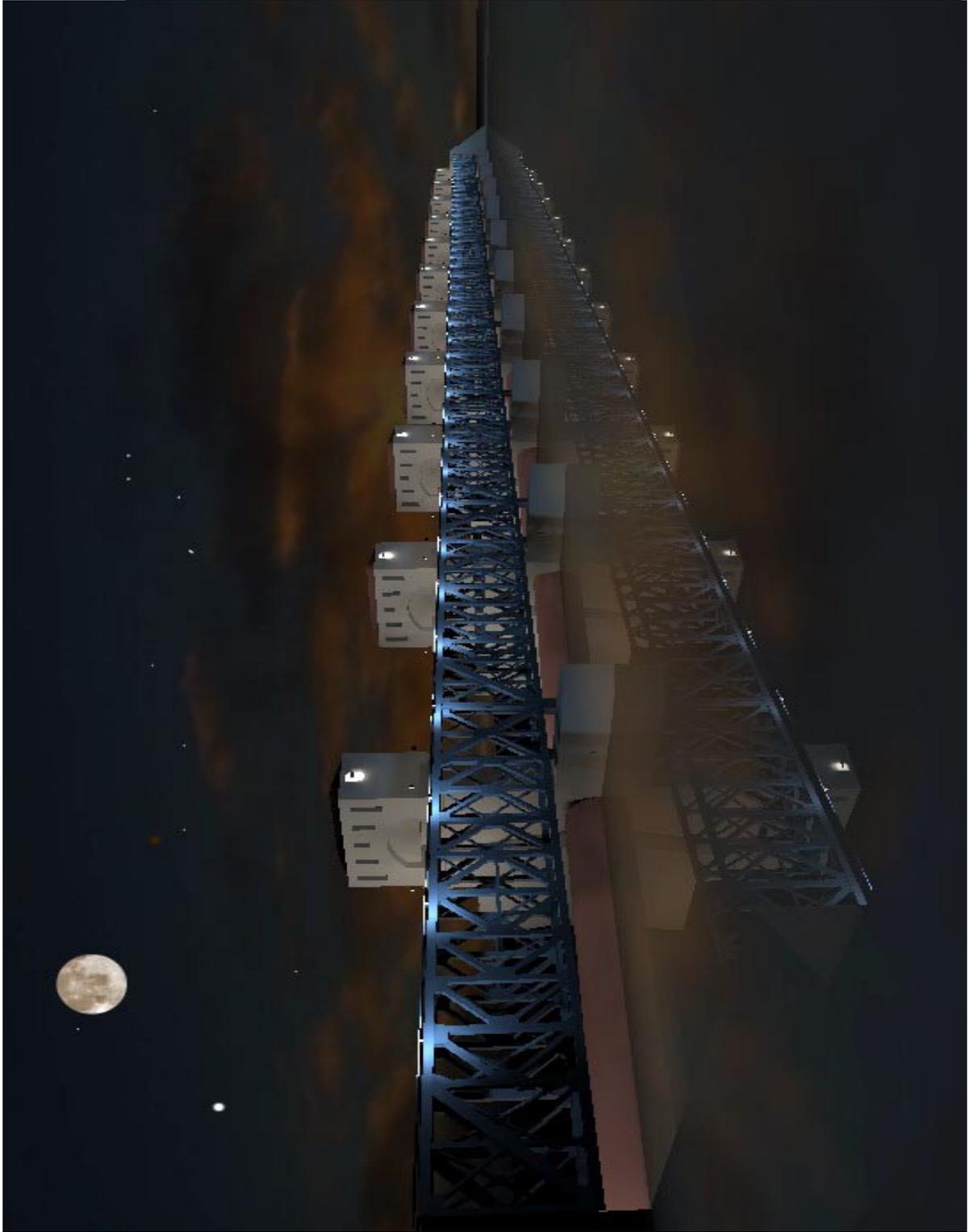


## renderings

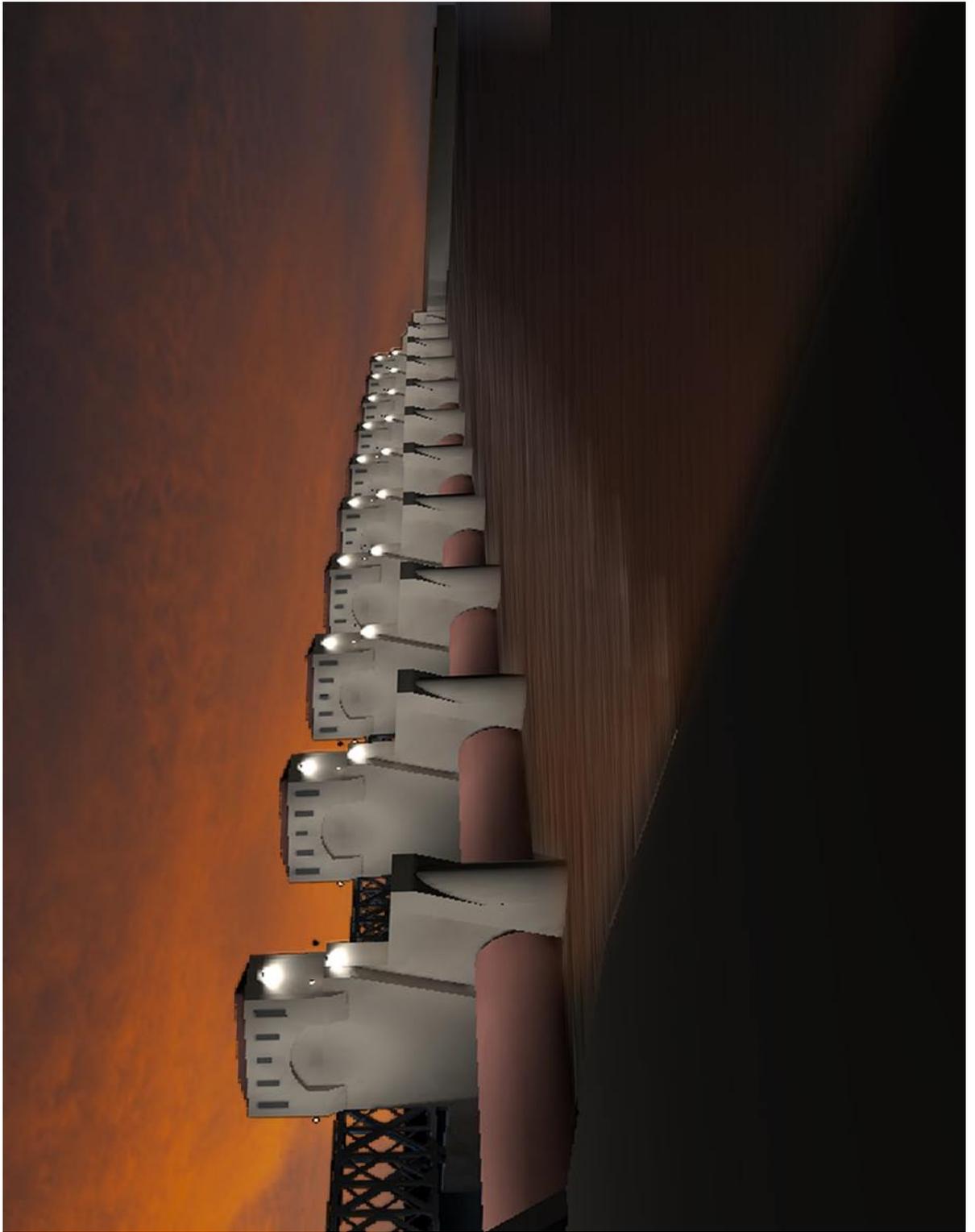
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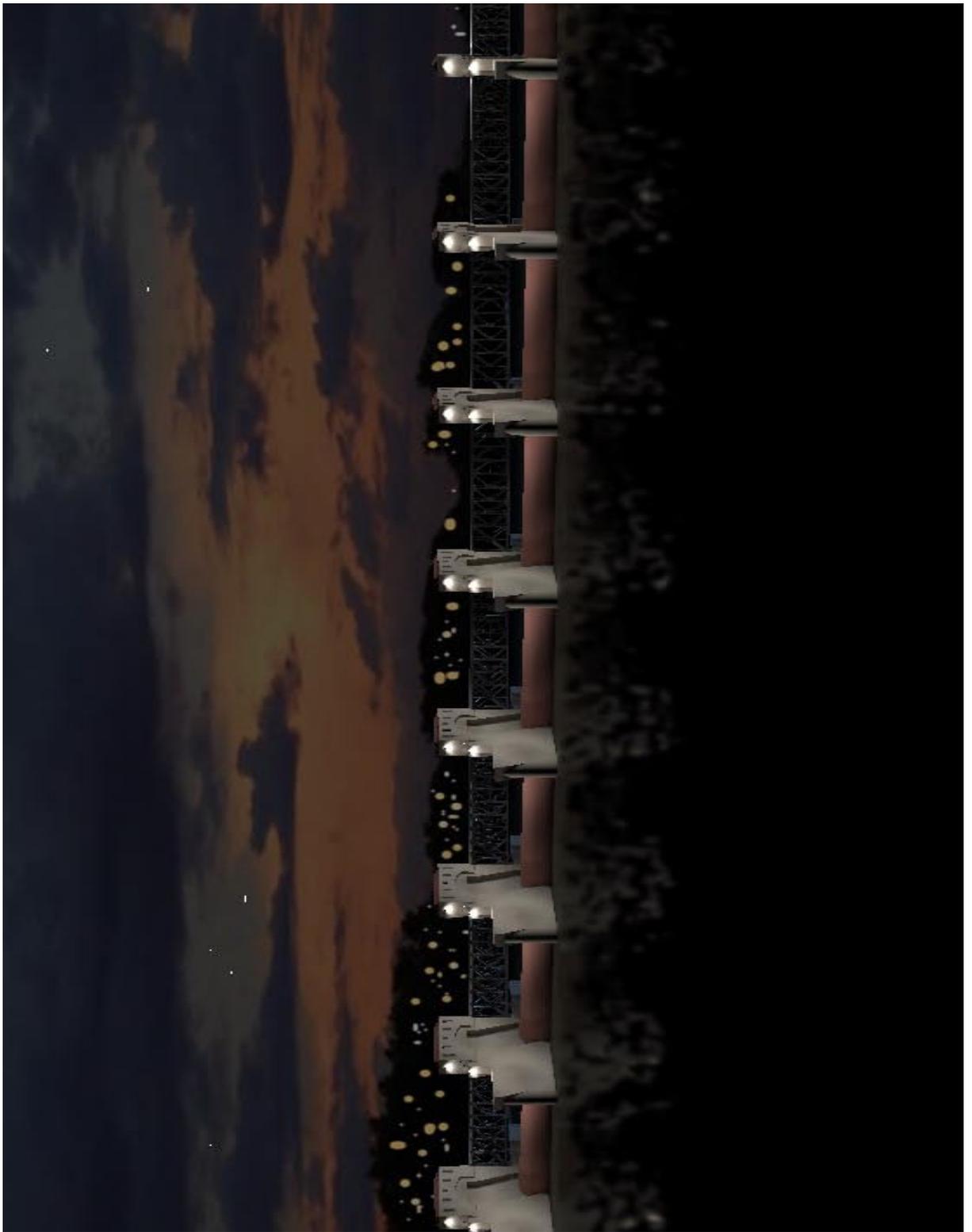
The following renderings are computer generated images based on lighting data, design intent and actual observations of field conditions by the lighting design team. However, they are only graphical in nature and do not necessarily accurately represent the final lighting design solution.





title





## summary and supporting materials

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At the kick-off meeting for this project, RDG asked each participant to record their thoughts on why this project would be important to the Quad Cities Community. Following are the responses we received:

“This project will provide another ‘connection’ between our two cities, part of a larger concept that will beautify the center of our cities and improve the quality of life.”

“To join both sides of the river and to enhance the look of both City’s waterfronts. It will begin to allow the region to have a ‘trademark’”.

“The project will frame the lower pool like bookends with the Centennial Bridge”

“It ties two communities together that share the riverfront. It also illustrates how old architecture can be modernized to enhance the community– something both communities are seeking.”

“This project is important because the Lock and Dam is our single most powerful feature. Our future is tied to our success in bringing developments, emphasis and vitality to this corridor. By lighting projects with well coordinated development of our commercial and public spaces, we have the opportunity to create a world class sense of place.”

“This project 1) signifies that RiverVision is real, 2) that intergovernmental cooperation works, 3) that river traffic (commerce), Corps, Government and art can co-exist and 4) that we are recapturing the river and its features– blending man made and nature.”

“It emphasizes and showcases an important element in our River system. It also helps unite the Quad Cities by linking across the river. ‘Joined by a River’ theme. Lock & Dam 15 has interesting design– worthy of being lit.”

“Unite both sides of the River.”

“Frames the downtown of Rock Island and Davenport– for entertainment purposes in the lower pool between the Centennial Bridge and the Dam.”

“To provide a source of civic pride. To reinforce connection with the River and to educate people about natural forces and technology to mitigate natural forces for human benefit.”

“The dam should be illuminated to 1) highlight the core of the Quad Cities, 2) attempt to show relationship to river, navigation, Rock Island Arsenal and two communities, 3) kick-off the first joint project of RiverVision and 4) demonstrate what a big impact a modest budget can produce.”

– end of comments

*The following documents including copies of Press Articles, public evaluation forms and design team notes have all been taken into consideration in developing the lighting plans represented in this document. Additional copie of PowerPoint shows, meeting minutes and other design documentation were issued previously or posted to the project FTP site for distribution to all members of the RiverVision committee and select individuals within the Corps of Engineers.*



**Type:**  
**Job:**  
**Catalog number:**

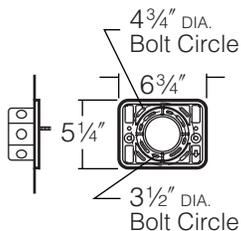
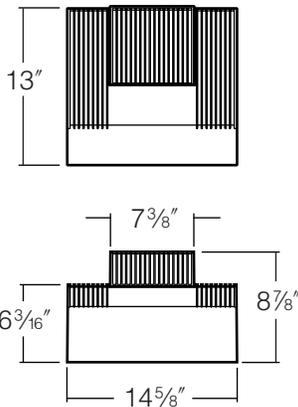
**Approvals:**

/	/	/	
Fixture	Electrical Module	Finish	Options
See page 2			See pages 3-4

**Date:**  
**Page: 1 of 4**

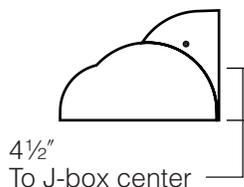
## Specifications

Maximum Fixture  
 Weight (150HPS) = 26 lb



### Mounting Plate

Attaches directly to any standard 4" J-box (by others)



**Reflector Housing:** One piece die-cast aluminum with integral cooling fins. Rotates against ballast housing to provide 10° of adjustment with degree markers cast into housing. At 0° adjustment, lens is totally concealed from view above horizontal with fixture aimed downward.

**Ballast Housing:** One piece die-cast aluminum with integral cooling fins. Fastens to mounting plate with keyhole slots freeing both hands for securing and wiring. One stainless steel socket-head screw on each side of housing frees the reflector housing to rotate for aiming. Tightening the screws locks the two housings together with sealing provided by a silicone gasket. For visual aiming, adjustment may be accomplished with the fixture on.

**Lens Frame:** One piece die-cast aluminum with integral hinges and stainless steel pins. Two stainless steel quarter-turn fasteners secure lens frame to reflector housing with sealing provided by a one piece extruded and vulcanized silicone gasket. Lens is clear flat 3/16" thick tempered glass sealed to lens frame with a silicone gasket and retainer clips. For UP models, lens is mounted flush with frame for water run off, and is silicone sealed.

**Type II, III, and IV Reflector Module:** Specular Alzak® optical segments are rigidly mounted to an aluminum module which attaches to the housing by a no-tool quick-disconnecting hinge and fastener. All sockets are porcelain medium base rated 4KV. All modules are factory prewired with a quick-disconnect plug for mating to the ballast. Available in three light distributions, all interchangeable within the same housing.

**Wall Grazer Reflector Module:** Specular Alzak® optical segment is rigidly formed into a self-contained module which attaches to the housing by a no-tool quick-disconnecting hinge and fastener. Black louver vanes run parallel to the lamp arc for controlling the hot spot directly behind the fixture, and spill light into the atmosphere. All sockets are porcelain medium base rated 4KV. All modules are factory prewired with a quick-disconnect plug for mating to the ballast.

**Spot Reflector Module:** Specular Alzak® optical spun parabola is rigidly mounted to a self-contained module which attaches to the housing by a no-tool quick-disconnecting hinge and fastener. Black internal louvers are provided to control the beam and prevent hot spots directly behind the fixture and spill light into the atmosphere. All sockets are porcelain medium base rated 4KV. All modules are factory prewired with a quick-disconnect plug for mating to the ballast.

**Electrical Components:** High power factor ballasts are rigidly mounted inside the housing and are factory prewired with a quick-disconnect plug for mating to the socket. Starting temperatures are -40°F for HPS lamp modes and -20°F for MH lamp modes.

**Mounting Plate:** Mounting plate attaches directly to any standard 4" Junction Box. All mounting plates are die-cast aluminum with reinforced ribs. Two studs are provided in each plate with flange nuts to allow fixture mounting by keyhole slots. Sealant must be applied (by others) between mounting plate and mounting surface to insure a dry Junction Box.

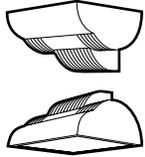
**Finish:** Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a chromate conversion coating; 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Platinum Silver, or White. Custom colors are available and subject to additional charges, minimum quantities and longer lead times. Consult representative.

**Certification:** UL Listed to U.S. and Canadian safety standards for wet locations. Fixture manufacturer shall employ a quality program that is certified to meet the ISO 9001 standard.

**CAUTION:** Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

Type:

Job:

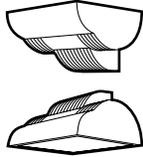


## Standard Features

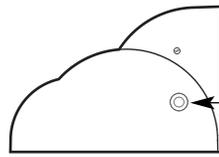
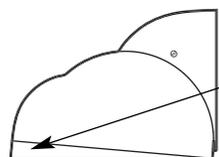
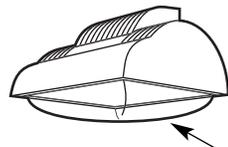
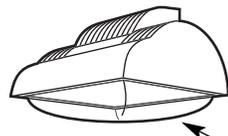
<p><b>Fixture</b>          Cat. No. designates <b>WD14</b> fixture, Up (U) or Down (D) configuration, and light distribution (2, 3, 4, G or S).</p>	      <p>WD Fixture          Light Distribution:      Type II      Type III      Type IV      Wall Grazer      Spot</p> <p>Cat. No.: (Up 14")      <input type="checkbox"/> <b>WD14U2</b>    <input type="checkbox"/> <b>WD14U3</b>    <input type="checkbox"/> <b>WD14U4</b>    <input type="checkbox"/> <b>WD14UG</b>    <input type="checkbox"/> <b>WD14US</b></p> <p>Cat. No.: (Down 14")    <input type="checkbox"/> <b>WD14D2</b>    <input type="checkbox"/> <b>WD14D3</b>    <input type="checkbox"/> <b>WD14D4</b>    <input type="checkbox"/> <b>WD14DG</b>    <input type="checkbox"/> <b>WD14DS</b></p>																																																														
<p><b>Electrical Module</b>  <b>HPS</b> = High Pressure Sodium  <b>MH</b> = Metal Halide</p>  <p>Lamp Watts    Lamp Type    Line Volts  <b>150    HPS    120</b></p>	<p>Cat. Nos. for Electrical Modules available:</p> <table border="1"> <tr> <td><input type="checkbox"/> <b>70HPS120</b></td> <td><input type="checkbox"/> <b>100HPS120</b></td> <td><input type="checkbox"/> <b>150HPS120</b></td> </tr> <tr> <td><input type="checkbox"/> <b>70HPS208</b></td> <td><input type="checkbox"/> <b>100HPS208</b></td> <td><input type="checkbox"/> <b>150HPS208</b></td> </tr> <tr> <td><input type="checkbox"/> <b>70HPS240</b></td> <td><input type="checkbox"/> <b>100HPS240</b></td> <td><input type="checkbox"/> <b>150HPS240</b></td> </tr> <tr> <td><input type="checkbox"/> <b>70HPS277</b></td> <td><input type="checkbox"/> <b>100HPS277</b></td> <td><input type="checkbox"/> <b>150HPS277</b></td> </tr> <tr> <td><input type="checkbox"/> <b>70HPS347</b></td> <td><input type="checkbox"/> <b>100HPS347</b></td> <td><input type="checkbox"/> <b>150HPS347</b></td> </tr> <tr> <td>Lamp</td> <td>ED-17, Clear</td> <td>ED-17, Clear</td> <td>ED-17, Clear</td> </tr> <tr> <td>Socket</td> <td>Medium Base</td> <td>Medium Base</td> <td>Medium Base</td> </tr> <tr> <td>ANSI Ballast Type</td> <td>S-62</td> <td>S-54</td> <td>S-55</td> </tr> </table> <table border="1"> <tr> <td><input type="checkbox"/> <b>70MH120</b></td> <td><input type="checkbox"/> <b>100MH120</b></td> <td><input type="checkbox"/> <b>150MH120</b></td> <td><input type="checkbox"/> <b>175MH120</b></td> </tr> <tr> <td><input type="checkbox"/> <b>70MH208</b></td> <td><input type="checkbox"/> <b>100MH208</b></td> <td><input type="checkbox"/> <b>150MH208</b></td> <td><input type="checkbox"/> <b>175MH208</b></td> </tr> <tr> <td><input type="checkbox"/> <b>70MH240</b></td> <td><input type="checkbox"/> <b>100MH240</b></td> <td><input type="checkbox"/> <b>150MH240</b></td> <td><input type="checkbox"/> <b>175MH240</b></td> </tr> <tr> <td><input type="checkbox"/> <b>70MH277</b></td> <td><input type="checkbox"/> <b>100MH277</b></td> <td><input type="checkbox"/> <b>150MH277</b></td> <td><input type="checkbox"/> <b>175MH277</b></td> </tr> <tr> <td><input type="checkbox"/> <b>70MH347</b></td> <td><input type="checkbox"/> <b>100MH347</b></td> <td><input type="checkbox"/> <b>150MH347</b></td> <td><input type="checkbox"/> <b>175MH347</b></td> </tr> <tr> <td>Lamp</td> <td>ED-17, Clear</td> <td>ED-17, Clear</td> <td>ED-17, Clear</td> <td>ED-17, Clear</td> </tr> <tr> <td>Socket</td> <td>Medium Base</td> <td>Medium Base</td> <td>Medium Base</td> <td>Medium Base</td> </tr> <tr> <td>ANSI Ballast Type</td> <td>M-98</td> <td>M-90</td> <td>M-102</td> <td>M-57</td> </tr> </table>	<input type="checkbox"/> <b>70HPS120</b>	<input type="checkbox"/> <b>100HPS120</b>	<input type="checkbox"/> <b>150HPS120</b>	<input type="checkbox"/> <b>70HPS208</b>	<input type="checkbox"/> <b>100HPS208</b>	<input type="checkbox"/> <b>150HPS208</b>	<input type="checkbox"/> <b>70HPS240</b>	<input type="checkbox"/> <b>100HPS240</b>	<input type="checkbox"/> <b>150HPS240</b>	<input type="checkbox"/> <b>70HPS277</b>	<input type="checkbox"/> <b>100HPS277</b>	<input type="checkbox"/> <b>150HPS277</b>	<input type="checkbox"/> <b>70HPS347</b>	<input type="checkbox"/> <b>100HPS347</b>	<input type="checkbox"/> <b>150HPS347</b>	Lamp	ED-17, Clear	ED-17, Clear	ED-17, Clear	Socket	Medium Base	Medium Base	Medium Base	ANSI Ballast Type	S-62	S-54	S-55	<input type="checkbox"/> <b>70MH120</b>	<input type="checkbox"/> <b>100MH120</b>	<input type="checkbox"/> <b>150MH120</b>	<input type="checkbox"/> <b>175MH120</b>	<input type="checkbox"/> <b>70MH208</b>	<input type="checkbox"/> <b>100MH208</b>	<input type="checkbox"/> <b>150MH208</b>	<input type="checkbox"/> <b>175MH208</b>	<input type="checkbox"/> <b>70MH240</b>	<input type="checkbox"/> <b>100MH240</b>	<input type="checkbox"/> <b>150MH240</b>	<input type="checkbox"/> <b>175MH240</b>	<input type="checkbox"/> <b>70MH277</b>	<input type="checkbox"/> <b>100MH277</b>	<input type="checkbox"/> <b>150MH277</b>	<input type="checkbox"/> <b>175MH277</b>	<input type="checkbox"/> <b>70MH347</b>	<input type="checkbox"/> <b>100MH347</b>	<input type="checkbox"/> <b>150MH347</b>	<input type="checkbox"/> <b>175MH347</b>	Lamp	ED-17, Clear	ED-17, Clear	ED-17, Clear	ED-17, Clear	Socket	Medium Base	Medium Base	Medium Base	Medium Base	ANSI Ballast Type	M-98	M-90	M-102	M-57
<input type="checkbox"/> <b>70HPS120</b>	<input type="checkbox"/> <b>100HPS120</b>	<input type="checkbox"/> <b>150HPS120</b>																																																													
<input type="checkbox"/> <b>70HPS208</b>	<input type="checkbox"/> <b>100HPS208</b>	<input type="checkbox"/> <b>150HPS208</b>																																																													
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<input type="checkbox"/> <b>70HPS277</b>	<input type="checkbox"/> <b>100HPS277</b>	<input type="checkbox"/> <b>150HPS277</b>																																																													
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<p><b>Finish</b>          Super TGIC powder coat paint over a chromate conversion coating.</p>	<p>Color:    Black      Dark Bronze    Light Gray    Platinum Silver    White    <sup>1</sup>Custom Colors</p> <p>Cat. No.:    <input type="checkbox"/> <b>BL-P</b>    <input type="checkbox"/> <b>DB-P</b>    <input type="checkbox"/> <b>LG-P</b>    <input type="checkbox"/> <b>PS-P</b>    <input type="checkbox"/> <b>WH-P</b>    <input type="checkbox"/> <b>CC-P</b></p> <p><sup>1</sup>Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____</p>																																																														

Type:

Job:



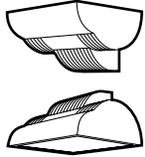
## Optional Features

<p><b>Photocell Control</b>          Cat. No. (see right)  <input type="checkbox"/> No Option</p>	<p>Factory installed inside housing with fully gasketed sensor on side wall.</p> <table border="0"> <tr> <td>Cat. No.</td> <td>Line Volts:</td> <td>Cat. No.</td> <td>Line Volts:</td> </tr> <tr> <td><input type="checkbox"/> A-30</td> <td>120V</td> <td><input type="checkbox"/> A-33</td> <td>277V</td> </tr> <tr> <td><input type="checkbox"/> A-31</td> <td>208V</td> <td><input type="checkbox"/> A-35</td> <td>347V</td> </tr> <tr> <td><input type="checkbox"/> A-32</td> <td>240V</td> <td></td> <td></td> </tr> </table>	Cat. No.	Line Volts:	Cat. No.	Line Volts:	<input type="checkbox"/> A-30	120V	<input type="checkbox"/> A-33	277V	<input type="checkbox"/> A-31	208V	<input type="checkbox"/> A-35	347V	<input type="checkbox"/> A-32	240V			 <p>Photocell Control</p>
Cat. No.	Line Volts:	Cat. No.	Line Volts:															
<input type="checkbox"/> A-30	120V	<input type="checkbox"/> A-33	277V															
<input type="checkbox"/> A-31	208V	<input type="checkbox"/> A-35	347V															
<input type="checkbox"/> A-32	240V																	
<p><b>Houseside Shield</b>          Cat. No. (see right)  <input type="checkbox"/> No Option</p>	<p>Combination louver shield and black end-panel for reflector. Factory installed to reflector module. Reduces light toward wall by the amounts shown.</p> <p><b>CAUTION:</b> Do not use the Houseside Shield option with the Wall Grazer as it will interfere with the light distribution.</p> <table border="0"> <tr> <td>Approximate Light Reduction Toward Wall</td> <td>Type II</td> <td>Type III</td> <td>Type IV</td> </tr> <tr> <td></td> <td>-43%</td> <td>-74%</td> <td>-77%</td> </tr> </table> <p>Cat. No.  <input type="checkbox"/> HS for flat lens  <input type="checkbox"/> HSC for fixtures with optional convex glass lens.</p>	Approximate Light Reduction Toward Wall	Type II	Type III	Type IV		-43%	-74%	-77%	 <p>HS for flat lens      HSC for convex lens</p>								
Approximate Light Reduction Toward Wall	Type II	Type III	Type IV															
	-43%	-74%	-77%															
<p><b>5° Shield</b>          Cat. No. <input type="checkbox"/> 5DS14  <input type="checkbox"/> No Option</p>	<p>Aluminum shield field-attached to lens frame. Maintains a horizontal cutoff fixture edge when the luminaire is tilted 5°. Finished to match the fixture.</p>	 <p>5° Shield</p>																
<p><b>Polycarbonate Shield</b>          Cat. No. <input type="checkbox"/> LS  <input type="checkbox"/> No Option</p>	<p><b>For DOWN fixture models only.</b> Fully gasketed one piece vacuum formed clear UV stabilized polycarbonate shield replaces standard tempered glass lens.</p>	 <p>Polycarbonate Shield</p>																
<p><b>Convex Glass Lens</b>          Cat. No. <input type="checkbox"/> CGL  <input type="checkbox"/> No Option</p>	<p>Tempered convex glass lens replaces standard flat lens.</p>	 <p>Convex Lens</p>																

Type:

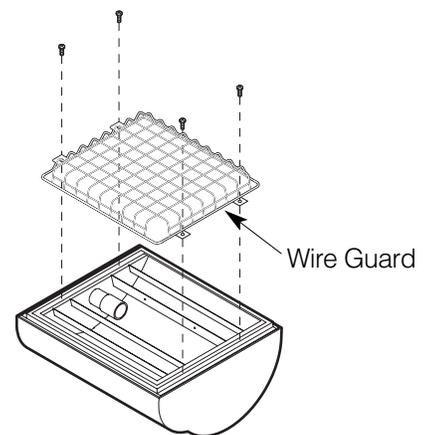
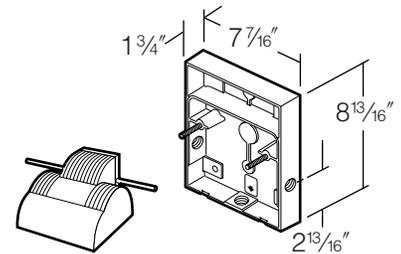
Job:

Page: 4 of 4



## Optional Features

<p><b>Fusing</b>          Cat. No. (see right)  <input type="checkbox"/> No Option</p>	<p>Line Volts:      120V      208V      240V      277V      347V          Cat. No.:      <input type="checkbox"/> SF      <input type="checkbox"/> DF      <input type="checkbox"/> DF      <input type="checkbox"/> SF      <input type="checkbox"/> SF</p>
<p><b>Quartz Standby</b>          Cat. No.    <input type="checkbox"/> QS  <input type="checkbox"/> No Option</p>	<p>Integral electronic device energizes a T-4 mini-can socket during initial lamp start-up or after a power interruption. De-energizes prior to H.I.D. lamp reaching full brightness. T-4 halogen lamp by others; 100 watt maximum.</p>
<p><b>Surface Conduit Mount</b>          Cat. No.    <input type="checkbox"/> SCM14U  <input type="checkbox"/> SCM14D  <input type="checkbox"/> No Option</p>	<p>Cast aluminum Junction Box and fixture mount for attachment (by others) to existing walls, beams or columns. SCM14 has one 3/4" conduit tap in each side and bottom only. Must be securely mounted to wall surface. Finished to match the fixture.</p> <p><b>SCM14U</b> for UP fixtures only.  <b>SCM14D</b> for DOWN fixtures only.</p>
<p><b>Wire Guard</b>          Cat. No.    <input type="checkbox"/> WG  <input type="checkbox"/> No Option</p>	<p>11 ga. (.12" dia.) BB Wire, 12<sup>3</sup>/<sub>8</sub>" x 10<sup>1</sup>/<sub>4</sub>" x 1<sup>1</sup>/<sub>2</sub>" deep. Finish is super TGIC thermoset polyester powder coat paint, over zinc plated wireform.</p> <p><b>NOTE:</b> Only available with flat lens applications.</p>



The Oculus® allows you to adjust to changing project conditions due to changes of setbacks, fixture positions, and lighting levels. The parabolic reflector, with adjustable focusing, provides variable beam patterns with just one fixture. The reflector can achieve a 10° spot to a 78° wide flood distribution.

- High intensity axial beam optics
- Field adjustable beam pattern
- Round or elliptical shape with optional lenses
- T6 and ed-17 metal halide lamps

**Uses:**

- Highlight architectural features
- Ground, wall or ceiling mounting
- Scallop surfaces



**External focusing**

Final adjustment of the light to make illuminate in just the right way is easy.

An adjustment screw on the exterior of the fixture allows for easy, on site focusing for a small tight beam to a larger spot pattern.



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## Architectural Area Lighting

## OL

FIXTURE	LAMP (OPTION)	INTERNAL OPTION	EXTERNAL OPTION	COLOR OPTION	MOUNTING OPTION
1	2	3	4	5	6

### 1 LARGE OCULUS - METAL HALIDE

CAT. NO.	DESCRIPTION
<input type="checkbox"/> OLR-70MHT6	70 watt metal halide magnetic ballast, 120/277 volt for T-6 lamp
<input type="checkbox"/> OLR-70MHT6EB	70 watt metal halide electronic ballast, 120 thru 277 volt for T-6 lamp
<input type="checkbox"/> OLR-150MHT6	150 watt metal halide magnetic ballast, 120/208/240/277 volt for T-6 lamp
<input type="checkbox"/> OLR-150MHT6EB	150 watt metal halide electronic ballast, 120 thru 277 volt for T-6 lamp
<input type="checkbox"/> OLR-70MH	70 watt metal halide magnetic ballast, 120/208/240/277 volt for ED-17 lamp
<input type="checkbox"/> OLR-70MHEB	70 watt metal electronic ballast, 120 thru 277 volt for ED-17 lamp
<input type="checkbox"/> OLR-100MH	100 watt metal halide magnetic ballast, 120/208/240/277 volt, ED-17 lamp
<input type="checkbox"/> OLR-100MHEB	100 watt metal electronic ballast, 120 thru 277 volt for ED-17 lamp
<input type="checkbox"/> OLR-150MH	150 watt metal halide magnetic ballast, 120/208/240/277 volt, ED-17 lamp
<input type="checkbox"/> OLR-150MHEB	150 watt metal halide electronic ballast, 120 thru 277 volt for ED-17 lamp
<input type="checkbox"/> OLR-175MH	175 watt metal halide magnetic ballast, 120/208/240/277 volt, ED-17 lamp

All ballasts are factory prewired for 277 volts, except electronic.  
Specify 120 or 277 volt for the 70 watt electronic ballast.

### 2 LAMP OPTION

CAT. NO.	DESCRIPTION
<input type="checkbox"/> LAMP 70	Philips 70 watt T-6 ceramic metal halide lamp, CDM 70/T6/830
<input type="checkbox"/> LAMP 150	Philips 150 watt T-6 ceramic metal halide lamp, CDM 150/T6/830

### 1 LARGE OCULUS - OTHER LAMP TYPES

CAT. NO.	DESCRIPTION
<input type="checkbox"/> OLR-T4	large Oculus for use with T-4 incandescent (mini-cand screw base) halogen lamps, maximum 250 watts, low profile housing.
<input type="checkbox"/> OLP-30	large Oculus for use with halogen Par 38 medium base skirted lamps, maximum 175 watts, incandescent, low profile housing.
<input type="checkbox"/> OL-CF	large Oculus for use with a compact fluorescent PL-T 42 watt lamp. 120 thru 277 volt electronic ballast, low profile housing.

SOLD TO \_\_\_\_\_ PO # \_\_\_\_\_ JOB NAME \_\_\_\_\_  
/ /

Approvals

**3 INTERNAL OPTION** mounted internally between the reflector and glass - one option per fixture




**LLN**

Linear spread lens




**LWA**

Wide angle spread




**LRL**

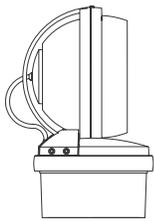
Concentric ring louver




**LHX**

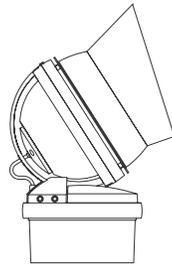
Black Hexcell louver

**4 EXTERNAL OPTION** one option per fixture



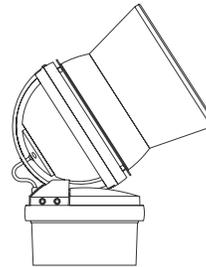

**LCM**

Color filter media holder  
Use a round glass filter



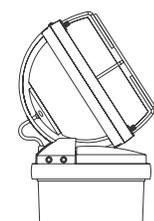

**LAH**

Angled hood shield




**LFH**

Full hood shield




**LRG**

Rock guard

• Dichroic filters are available from FX Corporation, 2260 W. 500 North, Hurricane, UT 84737 (435) 635-0239, www.fxlight.com (reference AAL-OS).

**5 COLOR AND COLOR OPTIONS**

The standard color is matte aluminum. Other AAL colors are available at no charge.

**WHT** White

**LGY** Light Grey

**MAL** Matte Aluminum

**MDG** Medium Grey

**ATG** Antique Green

**VGR** Verde Green

**WRZ** Weathered Bronze

**DGN** Dark Green

**CRT** Corten

**BRM** Metallic Bronze

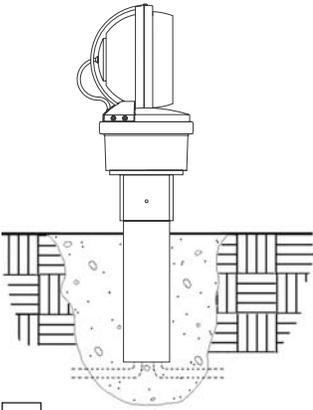
**DBZ** Dark Bronze

**BLK** Black

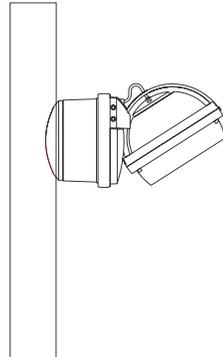
**RAL #** Provide a RAL 4 digit color number

**CUSTOM** Please provide a color chip for matching

6 MOUNTING OPTION



**MST**  
 Cast stanchion mount with a 18"/460mm x 4"/100mm o.d. aluminum post. Cast collar slips over the post and is secured with 3 stainless steel set screws.

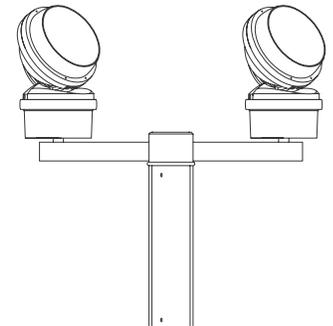


**MPS 4L**  
 Cast saddle mounts to the side of a 4"/100mm o.d. post.

**MPS 5L**  
 Cast saddle mounts to the side of a 5"/125mm o.d. pole.

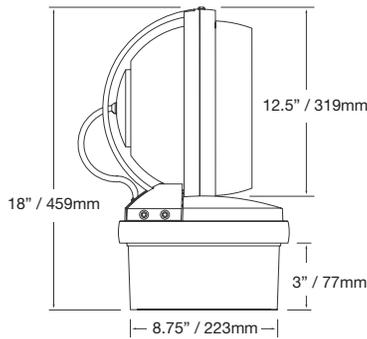


**MTE**  
 Cast tenon mount slips over a 4"/100mm o.d. post and secured with 3 stainless steel set screws.



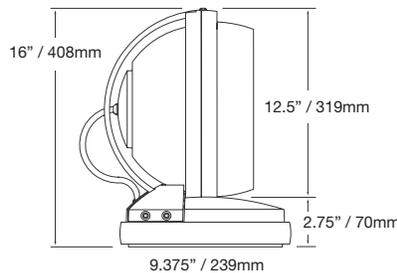
**MTW**  
 Cast twin arm and tenon slips over a 4"/100mm o.d. post and secured with 6 stainless steel set screws.  
 WT: 14 LBS  
 EPA: .75

Dimensions



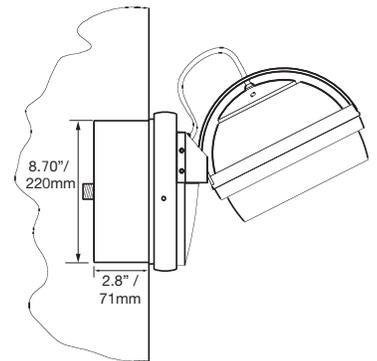
Tall ballast housing for standard magnetic or electronic ballast with metal halide lamps and compact fluorescent lamps. Housing can be recessed 3 inches in the wall.

OVERALL HT: 16.0"/405MM DIAMETER AT BASE: 8.70"/220MM  
 WT: 20 LBS EPA: 1.2



Short ballast housing for incandescent lamps.

OVERALL HT: 16.0"/405MM  
 DIAMETER AT BASE: 8.70"/220MM  
 WT: 18 LBS EPA: 1.2



Semi-Recess Wall Mounting.

**Note:** Apply silicone between the fixture and the finish wall.

OVERALL HT: 16.0"/405MM DIAMETER AT BASE: 8.70"/220MM  
 WT: 20 LBS

Architectural Area Lighting

OLR LARGE OCULUS WITH REFLECTOR AND 150 WATT T-6 METAL HALIDE LAMP

(L) = LAMP IN LOW POSITION, (H) = LAMP IN HIGH POSITION

MODEL	O DEG CP	BEAM ANGLE	FIELD ANGLE	EFF	NEMA CLASS	DISTANCE FROM FIXTURE									
						20'		40'		60'		80'		100'	
						AXIAL FC	CIRCLE DIA.	AXIAL FC	CIRCLE DIA.	AXIAL FC	CIRCLE DIA.	AXIAL FC	CIRCLE DIA.	AXIAL FC	CIRCLE DIA.
<b>OLR (L)</b>	193,849	9.1	19.1	63.1	2	484.6	6.7	121.2	13.5	53.8	20.2	30.3	26.9	19.4	33.6
<b>OLR (H)</b>	34,817	23.6	40	54.2	3	57.5	14.6	14.4	29.1	6.4	43.7	3.6	58.2	2.3	72.8
<b>OLR-LWA (L)</b>	8,822	48.2	74.4	52.1	5	22.1	30.4	5.5	60.8	2.5	91.2	1.4	121.6	0.9	151.9
<b>OLR-LWA (H)</b>	10,038	48.1	74.1	62	5	25.1	30.2	6.3	60.4	2.8	90.6	1.6	120.7	1	150.9
<b>OLR-LLN (L)</b>	23,963	16V50H	32V65H	51.7	3V4H	60	11x26	15	23x51	6.7	34x77	3.7	45x103	2.4	57x128
<b>OLR-LLN (H)</b>	28,911	12V48V	32V68H	59.8	3V4H	72	11x27	18	23x54	8	34x81	4.5	46x108	2.9	57x135

Complete IES photometric files are available at [www.aal.net](http://www.aal.net)

## Specifications

### HOUSING

The fixture housing is die cast aluminum. The front cover is secured with four cap screws for relamping and internal access. The front glass element is clear, tempered glass. The front cover and electrical module are sealed with memory retentive, molded silicone gaskets.

The lamp module swivels 105 degrees by loosening two stainless steel cap screws. Rotation is a full 360 degrees with a cam lock stop, by loosening three set screws. All internal and external hardware is stainless steel.

### OPTICAL MODULE

The parabolic reflector is spun aluminum, polished and anodized, that snaps into the front cover with three stainless steel spring clips. Internal accessories are installed between the reflector and inside cover. The adjustable socket assembly is mounted to the back of the lamp housing. The socket can be adjusted from the exterior of the fixture by turning an adjustment screw.

### ELECTRICAL MODULE

The ballast is mounted on a prewired plate with a quick disconnect plug and removed by loosening two captive screws. Magnetic metal halide ballasts are high power factor, rated for -30°F starting. Electronic metal halide ballasts are rated for -30°F starting, sound rating A. 120 or 277 volt. Sockets are pulse rated porcelain, bi-pin, G12 for T-6 and medium base for ED-17 metal halide

lamps. Compact fluorescent sockets are 4 pin, GX24q-3,4 with an electronic ballast, -5°F starting. Wired at the factory for 277 volts.

### FINISH

Fixture finish consists of a five stage pretreatment regimen with a polymer primer sealer, oven dry off and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

### INSTALLATION

The bottom of the ballast housing has a solid brass 1/2" NPT nipple. The deep housings have two knockouts for other means of mounting.

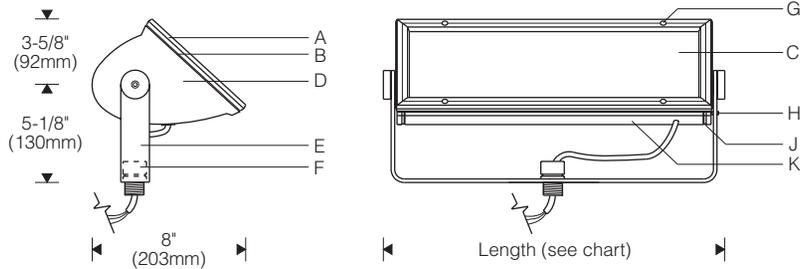
### CERTIFICATION

The fixture is listed with ETL for outdoor, wet location use, in all mounting orientations, UL1598 and Canadian CSA Std. C22.2 No.250. IP=66

### WARRANTY

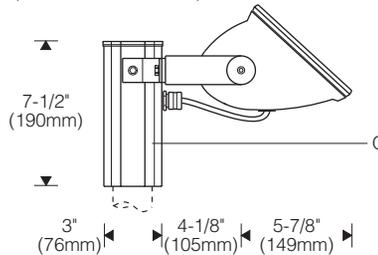
Fixture is warranted for three years. Ballast components carry the ballast manufacturer's limited warranty.

### V Mount 1:10 Scale



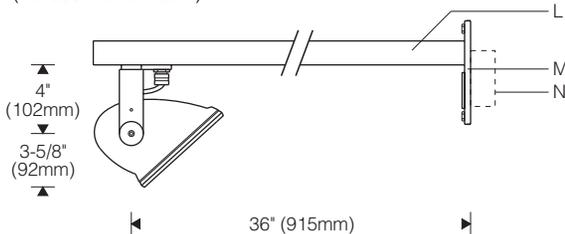
### Side-Mount Slipfitter

(For use with X Mount)



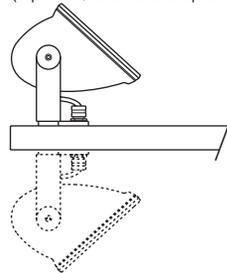
### Cantilever: Lighting Downward 1:12 Scale

(For use with X Mount)



### Lighting Upward

(Upward/downward optional)



Wattage	Source	Length
150	HPS	12-1/16" (306mm)
175	MH	
300-500	Halogen	
250, 400	MH/HPS	17-13/16" * (452mm)
900, 1000	Halogen	24-7/8" * (632mm)
2x400	MH/HPS	

\*Yoke includes (2) 9/32" dia. holes at 12" (305mm) centers for supplemental mounting support (1/4" fasteners by others)



## Specifications

- |   |   |   |   |
|---|---|---|---|
| <b>A</b> Mitred extruded aluminum door frame                            | <b>D</b> Die-cast aluminum end plates         | <b>H</b> Locking set screw                    | <b>M</b> Welded aluminum mounting plate with splice access cover              |
| <b>B</b> Precured silicone door and lens gasket                         | <b>E</b> Aluminum yoke                        | <b>J</b> Aluminum reveal plates (black)       | <b>N</b> Outlet box (by others)   |
| <b>C</b> Clear, flat, thermal and impact resistant, tempered glass lens | <b>F</b> 1/2" NPT nipple                      | <b>K</b> Specular extruded aluminum reflector | <b>O</b> Accessory extruded aluminum slipfitter for 2-3/8" O.D. pole or tenon |
|   | <b>G</b> Tamper-resistant captive door screws | <b>L</b> 1-1/2" x 2" aluminum arm             |   |

### Finish:

Exterior surfaces - 6 stage pretreatment and electrostatically applied thermoset polyester powder coating for a durable abrasion, fade and corrosion resistant finish. Choice of semi-gloss colors (see ordering information).

Reflector and internal end plates - extruded high purity aluminum with clear anodized specular finish. All hardware and components - non corrosive stainless steel or aluminum. Door secured with captive tamper-resistant (#10 Torx) screws in stainless steel threaded reflector inserts to prevent seizing. Yoke attaches with recessed hex socket screws.

### Mounting:

1/2" NPT nipple (wet location outlet box or fitting by others).

Aluminum cantilever mounting assembly ordered separately; specify X mount. Suitable backing structure required.

Accessory slipfitter ordered separately. Top or side mount for single unit; specify X mount. Fits 2-3/8" O.D. stanchion, pole, or tenon (by others).

### Standard:

UL listed or CSA certified for wet locations.

REV. 11/02

### Electrical:

Use 90°C wire for supply connections. Leads exit reflector through watertight flush cord entry, silicone coated fiberglass sleeving; 8" exposed beyond nipple (60" leads on X mount).

Tungsten halogen - recessed single contact (RSC) lampholders in patented clamping supports for maximum heat dissipation.

Metal halide - position oriented mogul lampholder for use with either POMB horizontal or universal position lamp (medium base for 175W). Rotating bracket allows horizontal lamp to be locked in proper position after aiming (hinged lampholders for 2x400W are fixed in position to light up a vertical surface). End-of-lamp aligner ensures consistent optical performance, minimizes damage from shock or vibration.

HPS - pulse rated mogul lampholder (medium base for 150W).

Ballast - remote HPF constant wattage autotransformer (CWA) rated for -20°F/-29°C starting (high reactance autotransformer (HX-HPF) for 150W HPS). Weatherproof aluminum enclosure includes three 7/8" dia. entries and one 3/8" liquidtight conduit connector. Optional remote ballast for dry indoor location.

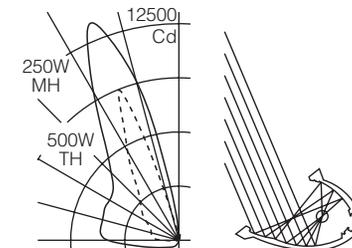
For complete ballast specifications, see Accessories Section.

## Features

- Compact yet powerful - up to 1000W halogen, 2x400W metal halide for lighting across large facades, walls, signs
- Superior distribution for closer setbacks, greater spacings
- Optimum performance - high output position oriented metal halide, end-of-lamp aligner, set screw locks aiming
- Built to last - all aluminum and stainless steel components

## Performance

Two parabolic reflector sections drive light up (or down) the vertical plane from one edge. An elliptical section redirects its light to a parabola and shields the lamp. Asymmetry is maximized resulting in high beam efficiency and superior surface uniformity. The fast "runback" minimizes glare and spill light. Wide lateral distribution permits greater spacings.

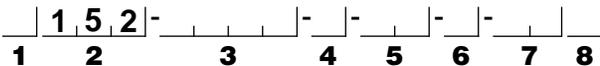


For complete photometrics, visit [www.elliptipar.com](http://www.elliptipar.com).

**elliptipar**



To form a Catalog Number



1 Source

M = Metal halide  
H = High pressure sodium  
T = Tungsten halogen

2 Style

152 = Large outdoor, remote ballast

3 Lamp

Lamp Code	Watt-age	Lamp Number	Volt-age(s)	Ballast	Dis-tance
-----------	----------	-------------	-------------	---------	-----------

Metal Halide\*

0175	175	MH175/U/MED	A, B, H	CWA	105'(32m)
0250	250	MH250/HOR	A, B, H	CWA	75'(23m)
0400	400	MH400/HOR	A, B, H	CWA	50'(15m)
240V‡	2x400	(2) MH400/HOR	A, B, H	CWA	50'(15m)

High Pressure Sodium

0150	150	LU150/MED	A, B, H	HX-HPF	5'(1.5m)
0250	250	LU250	A, B, H	CWA	5'(1.5m)
0400	400	LU400	A, B, H	CWA	10'(3.0m)
2400	2x400	(2) LU400	A, B, H	CWA	10'(3.0m)

Tungsten Halogen

0300	300	Q300T3	A		
0350+	350	Q350T3/CL/HIR+	A		
0500	500	Q500T3	A		
0900+	900	Q900T3/CL/HIR+	B, G		
1000	1000	Q1000T3	A, F, G		

For complete lamp and ballast information, see Accessories Section.

\* Use clear metal halide horizontal or universal position lamp with compact envelope. 250 and 400W lamps are horizontal position oriented mogul base (POMB) that yield higher light output than universal position lamps. Standard metal halide lamp colors are 4000K for 175W, 3200K for 250 and 400W.

‡2x400W metal halide uses position oriented mogul lampholders that are hinged and fixed in position to light up a vertical surface (±15°). To light down a vertical surface, consult local sales representative.

+350 and 900W IR coated halogen yield approximately the same light output as conventional 500 and 1500W halogen lamps respectively.

Project: \_\_\_\_\_

4 Mounting

V = External yoke with 1/2" NPT nipple (wet location outlet box or fitting by others)  
X = External yoke for use with accessory cantilever or side-mount slipfitter (order separately)

**Note:** Lamps in 2x400W metal halide units are fixed in position for upward facing orientation to light up the vertical surface. For 2x400W in downward orientation, consult local sales representative.

5 Finish

02 = Semi-gloss white  
06 = Dark bronze  
07 = Silver  
08 = Semi-gloss black  
12 = Green  
99 = Custom RAL or computer matched color to be specified, consult sales representative.

6 Voltage

A = 120V  
B = 277V  
F = 220V (1000W TH only)  
G = 240V (900W, 1000W TH only)  
H = 347V

7 Option (See Accessories Section for specifications)

00 = No options  
0D = Remote ballast for dry indoor location  
0H = Long distance remote ballast up to 35' (10m) for 150W HPS, up to 50' (15m) for 250W and 400W HPS  
TL = Micro-prismatic tempered glass lens (replaces clear flat lens), offers smoother light pattern at reduced peak candlepower.  
XX = For modification not listed, include detailed description. Consult factory prior to specification.

8 Standard

0 = UL, Underwriters Laboratories  
J = CSA, Canadian Standards Association

Example

M152 - 0250 - X - 06 - B - 0D0

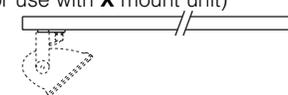
Large outdoor model for use with 250 watt metal halide lamp. External yoke for use with accessory cantilever or side-mounted slipfitter (order separately). Dark bronze powder coat finish. Remote 277V ballast for dry indoor location. UL.

Type: \_\_\_\_\_

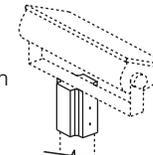
Accessories

Order separately. See Accessories Section for specifications.

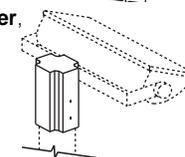
AC \_\_\_\_\_ 36 \_\_\_\_\_ = Cantilever, 36" (914mm) setback (for use with X mount unit)  
0 = UL  
J = CSA  
5 Finish  
L = single unit (downward or upward facing only)  
U = double unit (down and upward facing)



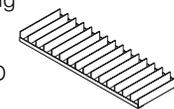
ASF \_\_\_\_\_ T10 = Top-mount slipfitter, for 2-3/8" O.D. stanchion, pole or tenon (for use with single X mount unit)  
5 Finish



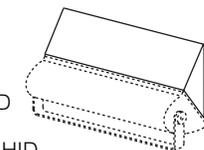
ASF \_\_\_\_\_ S10 = Side-mount slipfitter, for 2-3/8" O.D. pole, stanchion or tenon (for use with single X mount unit)  
5 Finish



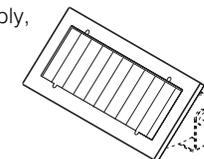
AE \_\_\_\_\_ V \_\_\_\_\_ 0D0 = External vertical blade baffle, black, for lengthwise shielding  
2 = 25° shielding  
4 = 45°  
C = 300W, 350W TH; 150W, 175W HID  
D = 250W, 400W HID  
F = 900W, 1000W TH; 2x400W HID



AV \_\_\_\_\_ 0D0 = Cutoff visor  
5 Finish  
C = 300-500W TH; 150W, 175W HID  
D = 250W, 400W HID  
F = 900W and 1000W TH; 2x400W HID



AXF = Wet location color filter assembly, interchangeable frame with stripped color glass.  
**Not suitable for all lamp wattages.** Consult factory for complete specifications and ordering information.



AFK000X \_\_\_\_\_ = Ballast fuse kit  
0 = UL, J = CSA



Fixture Type:



ODEC1535  
pictured

The Altman ODEC is the first fully functioning affordable outdoor ellipsoidal with 15-35-degree zoom focus, framing shutters, glass/steel pattern projection capabilities and internal/external accessory mounting options for color media, louver, donut, scroller or douser. The ODEC's removable lid allows for maximum accessibility during installation and for lamp and lens adjustments. Two stainless steel safety cables hold the lid securely when the fixture is opened. The lid is secured to the body with four side-mount link-lock latches that provide a water-tight seal. Padlocks of appropriate size can be added for security.

The ODEC is designed and engineered with a number of innovative features enhancing versatility and efficiency without sacrificing performance. The proprietary highly polished reflector is engineered for use with 70-, or 150-watt G12 ceramic-discharge metal halide (CDM) lamps and provides for maximum light output. The lens focus is modified by means of Teflon® guides that are simple to adjust throughout the focusing range. Focus is secured by way of brass thumb screws. The instrument comes complete with pattern holder. An optional single gobo rotator with speed and polarity control is available. The Altman Outdoor Ellipsoidal is state of the art in design, function, and efficiency.

Specifications subject to change without notice

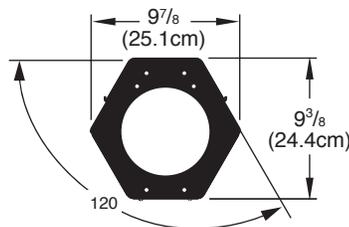
**70/150 WATT  
OUTDOOR ELLIPSE-CDM**

**Features**

- Compact, rugged welded aluminum fabrication
- Low-friction Teflon® lens glides
- Utilizes 12,000 hour CDM lamp with high color rendering index
- Low-noise, high-efficiency electronic ballast
- Easily adjustable Type 321-gauge stainless steel shutters
- Accessory slot accepts single gobo rotator, or metal or glass pattern holder
- 15-35° zoom
- Easy operating lamp centering knob and peak or flat field adjustment knob
- U.L.- and c.U.L.-listed for wet locations
- Made in the USA

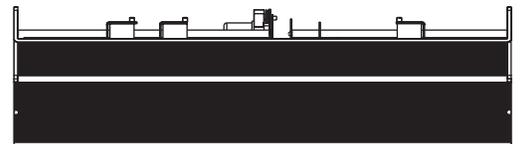
**Features (External Housing)**

- Aluminum and stainless steel construction
- Link-Lock latches for security
- Designed for indoor/outdoor applications
- Cable entry glands and mounting holes located on bottom of enclosure

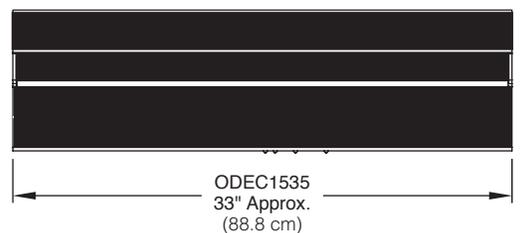


15-35°

Lid off



Lid on



**Specifications**

**Materials:** Construction employs all corrosion-resistant materials and hardware.

**Head:** Welded aluminum fabrication.

**Rating:** 120 volt AC operation; 50/60Hz .58 amps with 70W lamp and 70W ballast; 1.25 amps with 150W lamp and 150W ballast. 240 and 277 VAC units are available.

**Lamp/Socket:** 70W or 150W UV Block G12 Ceramic Metal Halide lamp. 5kV pulse rated socket.

**Lamp Alignment:** Fully adjustable in 3 axis with the use of two heat resistant concentric knobs.

**Lens:** Crown Glass (white plate) with anti-reflector coated surfaces.

**Reflector:** Proprietary curve, specular aluminum.

**Focusing:** Lens movement contained within body, adjustable with brass thumb screws.

**Accessories:** Internal accessory slot accepts color filters or glass filters. External accessory slot accepts 7½" accessories.

**Weight:** Approx. 35 lbs. (15.9 Kg).

**ORDERING INFORMATION:**

Part	Model	Lens	Voltage	Wattage	Color
Number	ODEC				(B)lack
		1535	110	70	(W)hite
			240	150	(S)ilver
			277		(X)custom

**Specifications (External Housing)**

**Construction:** ½" heavy-gauge aluminum construction (body and lid).

**Viewing Window:** Glass, 0.25-inch (6.35 mm) thick, 6¼" diameter.

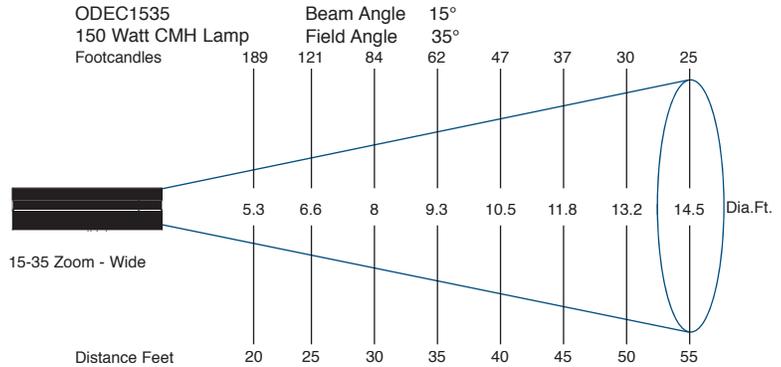
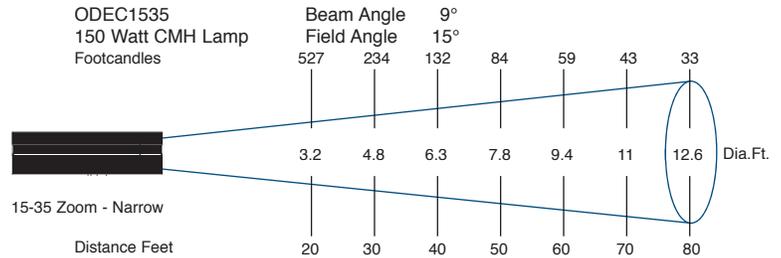
**Environment:** Indoor/Outdoor; -10° to 120°F (-23° to 49°C).

**Latches:** Link-lock No. 3, stainless steel; can be secured with padlocks (not supplied).

**Mounting:** Per specification.

**Accessories:** Installed with locking external slot.

**Finish:** Black TGIC polyester powdercoat. White and silver also available.



ADDITIONAL ACCESSORIES	
ODE-MDWM	Medium duty wall mount. Max. load 40 lb. (18.1 kg.)
ODE-PMA	Pole mount adapter for ODE-MDWM. Minimum pole diameter 1.5" (3.8 cm.) Stainless steel straps supplied. Strap length. 28.5' (72.39cm)
ODE-SGR	Single Gobo Rotator
90-70CDMT6/830	70 Watt CDM Lamp 3000K-12,000 Hr.
90-70CDMT6/942	70 Watt CDM Lamp 4000K-12,000 Hr.
90-150CDMT6/830	150 Watt CDM Lamp 3000K-12,000 Hr.
90-150CDMT6/942	150 Watt CDM Lamp 4000K-6,000 Hr.
90-150CDMSA/942	150 Watt CDM Lamp 4200K-5,000 Hr. Short Arc

**LAMP DATA**

Lamp Type	Watts	Efficiency	Color Temp (°K)	Rated Life (Hours)	Rated Lumens	Color Rendering Index	Burn Position
CDM 70/T6/830	70	>92 LPW	3000	12,000	6,600	82	Any
CDM 70/T6/942	70	>92 LPW	4000	12,000	6,600	92	Any
CDM 150/T6/830	150	>93 LPW	3000	12,000	14,000	85	Any
CDM 150/T6/942	150	>85 LPW	4000	6,000	12,700	95	Any
CDM SA150/T6/942	150	>86 LPW	4200	5,000	12,900	96	Any

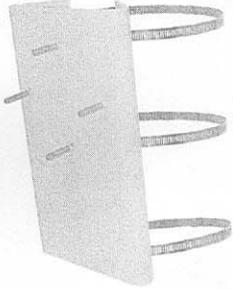
ACCESSORIES SUPPLIED WITH LUMINAIRE	
ODE-MDPM	Medium duty pedestal mount. Max. load 40 lb. (18.1 kg.)
SC-18-BK	Black Safety Cable, 18"

Conversion Factor
70 Watt Lamp = f.c. x .48
Lux: = f.c. x .0929

## ODEC-1535 MOUNTING OPTIONS

### ODEC-PMA

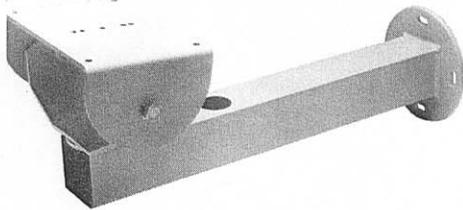
Pole Mount Option



\*\*\*MUST BE USED WITH ODEC-HDWM\*\*\*

### ODEC-PTH

Pan-Tilt Head



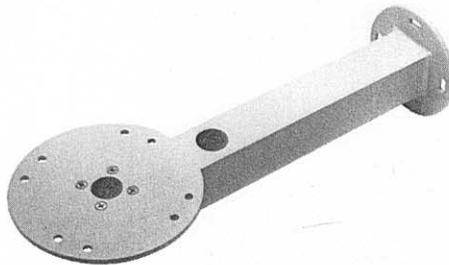
SHOWN WITH ODEC-HDWM

### ODEC-HDWM

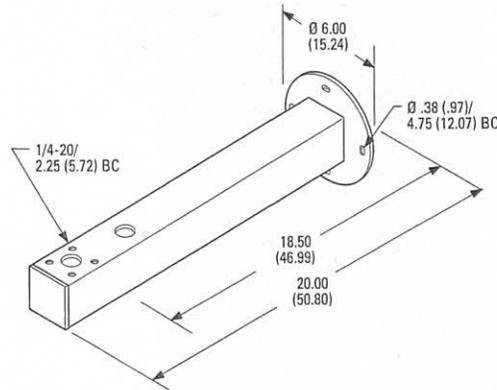
Heavy Duty Wall Mount

#### Product Features

- Wall Mounting
- Can Also be Used in Corner, Pole, and Parapet Applications when used with Appropriate Mount Adapter
- Supports up to 75 Pounds (34 kg); 150 Pounds (68 kg) when used with ST1 Strut
- For use with Medium- and Heavy-Duty Pan/Tilts or Enclosures
- Cable Feedthrough Holes (Top and End of Arm); Removable Plastic Cap on Front End



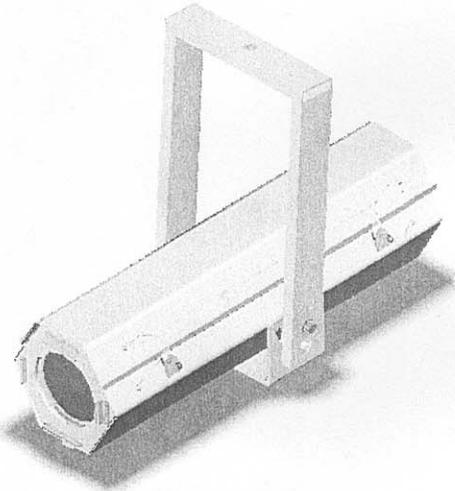
#### MEASUREMENTS



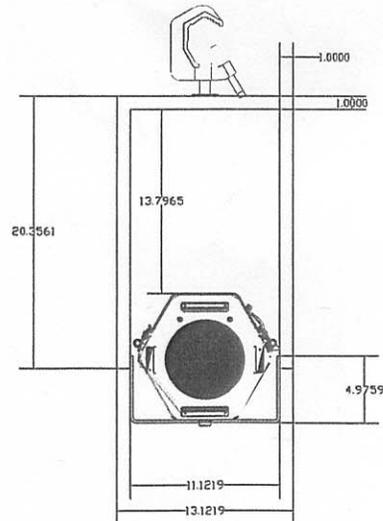
NOTE: VALUES IN PARENTHESES ARE CENTIMETERS;  
ALL OTHERS ARE INCHES.

### ODEC-FRAME

Under Hung ODEC Yoke



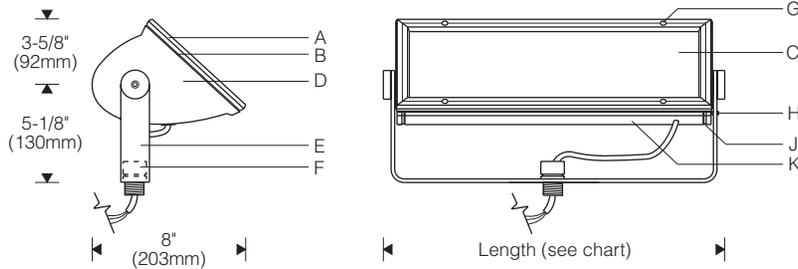
SHOWN WITH ODEC  
MEASUREMENTS



**PLEASE CONTACT THE ALTMAN FACTORY FOR ADDITIONAL INFORMATION**

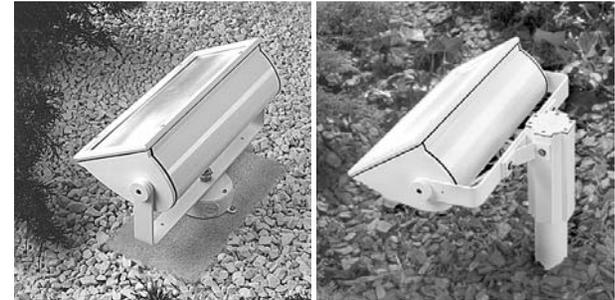
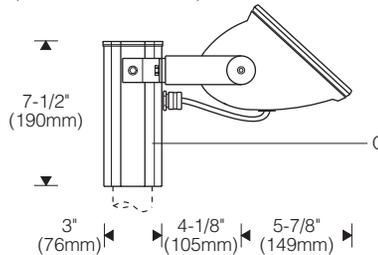
Altman Lighting, Inc. • 57 Alexander Street, Yonkers, NY. 10701 • PH: 914.476.7987 FAX: 914.968.5713  
Visit our website at <http://www.altmanltg.com> ©2002 Altman Stage Lighting Company, Inc.  
Altman Lighting, Inc. is a subsidiary of Altman Stage Lighting Company, Inc.

### V Mount 1:10 Scale



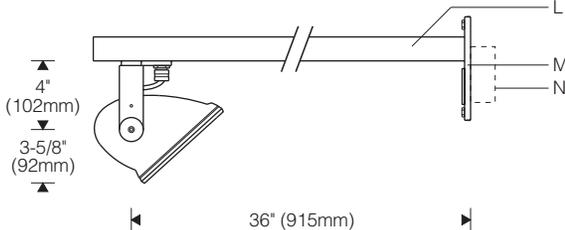
### Side-Mount Slipfitter

(For use with X Mount)



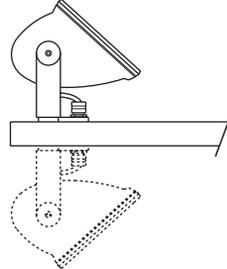
### Cantilever: Lighting Downward 1:12 Scale

(For use with X Mount)



### Lighting Upward

(Upward/downward optional)



Wattage	Source	Length
150	HPS	12-1/16" (306mm)
175	MH	
300-500	Halogen	
250, 400	MH/HPS	17-13/16" * (452mm)
900, 1000	Halogen	24-7/8" * (632mm)
2x400	MH/HPS	

\*Yoke includes (2) 9/32" dia. holes at 12" (305mm) centers for supplemental mounting support (1/4" fasteners by others)



## Specifications

- |   |   |   |   |
|---|---|---|---|
| <b>A</b> Mitred extruded aluminum door frame                            | <b>D</b> Die-cast aluminum end plates         | <b>H</b> Locking set screw                    | <b>M</b> Welded aluminum mounting plate with splice access cover              |
| <b>B</b> Precured silicone door and lens gasket                         | <b>E</b> Aluminum yoke                        | <b>J</b> Aluminum reveal plates (black)       | <b>N</b> Outlet box (by others)   |
| <b>C</b> Clear, flat, thermal and impact resistant, tempered glass lens | <b>F</b> 1/2" NPT nipple                      | <b>K</b> Specular extruded aluminum reflector | <b>O</b> Accessory extruded aluminum slipfitter for 2-3/8" O.D. pole or tenon |
|   | <b>G</b> Tamper-resistant captive door screws | <b>L</b> 1-1/2" x 2" aluminum arm             |   |

### Finish:

Exterior surfaces - 6 stage pretreatment and electrostatically applied thermoset polyester powder coating for a durable abrasion, fade and corrosion resistant finish. Choice of semi-gloss colors (see ordering information).

Reflector and internal end plates - extruded high purity aluminum with clear anodized specular finish. All hardware and components - non corrosive stainless steel or aluminum. Door secured with captive tamper-resistant (#10 Torx) screws in stainless steel threaded reflector inserts to prevent seizing. Yoke attaches with recessed hex socket screws.

### Mounting:

1/2" NPT nipple (wet location outlet box or fitting by others). Aluminum cantilever mounting assembly ordered separately; specify X mount. Suitable backing structure required.

Accessory slipfitter ordered separately. Top or side mount for single unit; specify X mount. Fits 2-3/8" O.D. stanchion, pole, or tenon (by others).

### Standard:

UL listed or CSA certified for wet locations.

REV. 11/02

### Electrical:

Use 90°C wire for supply connections. Leads exit reflector through watertight flush cord entry, silicone coated fiberglass sleeving; 8" exposed beyond nipple (60" leads on X mount).

Tungsten halogen - recessed single contact (RSC) lampholders in patented clamping supports for maximum heat dissipation.

Metal halide - position oriented mogul lampholder for use with either POMB horizontal or universal position lamp (medium base for 175W). Rotating bracket allows horizontal lamp to be locked in proper position after aiming (hinged lampholders for 2x400W are fixed in position to light up a vertical surface). End-of-lamp aligner ensures consistent optical performance, minimizes damage from shock or vibration.

HPS - pulse rated mogul lampholder (medium base for 150W).

Ballast - remote HPF constant wattage autotransformer (CWA) rated for -20°F/-29°C starting (high reactance autotransformer (HX-HPF) for 150W HPS). Weatherproof aluminum enclosure includes three 7/8" dia. entries and one 3/8" liquidtight conduit connector. Optional remote ballast for dry indoor location.

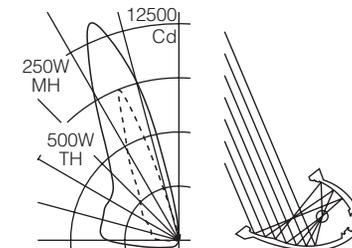
For complete ballast specifications, see Accessories Section.

## Features

- Compact yet powerful - up to 1000W halogen, 2x400W metal halide for lighting across large facades, walls, signs
- Superior distribution for closer setbacks, greater spacings
- Optimum performance - high output position oriented metal halide, end-of-lamp aligner, set screw locks aiming
- Built to last - all aluminum and stainless steel components

## Performance

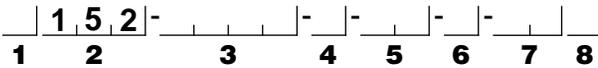
Two parabolic reflector sections drive light up (or down) the vertical plane from one edge. An elliptical section redirects its light to a parabola and shields the lamp. Asymmetry is maximized resulting in high beam efficiency and superior surface uniformity. The fast "runback" minimizes glare and spill light. Wide lateral distribution permits greater spacings.



For complete photometrics, visit [www.elliptipar.com](http://www.elliptipar.com).



To form a Catalog Number



1 Source

- M = Metal halide
- H = High pressure sodium
- T = Tungsten halogen

2 Style

152 = Large outdoor, remote ballast

3 Lamp

Lamp Code	Watt-age	Lamp Number	Volt-age(s)	Ballast	Dis-tance
Metal Halide*					
0175	175	MH175/U/MED	A, B, H	CWA	105'(32m)
0250	250	MH250/HOR	A, B, H	CWA	75'(23m)
0400	400	MH400/HOR	A, B, H	CWA	50'(15m)
240V‡	2x400	(2) MH400/HOR	A, B, H	CWA	50'(15m)
High Pressure Sodium					
0150	150	LU150/MED	A, B, H	HX-HPF	5'(1.5m)
0250	250	LU250	A, B, H	CWA	5'(1.5m)
0400	400	LU400	A, B, H	CWA	10'(3.0m)
2400	2x400	(2) LU400	A, B, H	CWA	10'(3.0m)
Tungsten Halogen					
0300	300	Q300T3	A		
0350+	350	Q350T3/CL/HIR+	A		
0500	500	Q500T3	A		
0900+	900	Q900T3/CL/HIR+	B, G		
1000	1000	Q1000T3	A, F, G		

For complete lamp and ballast information, see Accessories Section.

\* Use clear metal halide horizontal or universal position lamp with compact envelope. 250 and 400W lamps are horizontal position oriented mogul base (POMB) that yield higher light output than universal position lamps. Standard metal halide lamp colors are 4000K for 175W, 3200K for 250 and 400W.

‡2x400W metal halide uses position oriented mogul lampholders that are hinged and fixed in position to light up a vertical surface (±15°). To light down a vertical surface, consult local sales representative.

+350 and 900W IR coated halogen yield approximately the same light output as conventional 500 and 1500W halogen lamps respectively.

Project: \_\_\_\_\_

4 Mounting

- V = External yoke with 1/2" NPT nipple (wet location outlet box or fitting by others)
- X = External yoke for use with accessory cantilever or side-mount slipfitter (order separately)

**Note:** Lamps in 2x400W metal halide units are fixed in position for upward facing orientation to light up the vertical surface. For 2x400W in downward orientation, consult local sales representative.

5 Finish

- 02 = Semi-gloss white
- 06 = Dark bronze
- 07 = Silver
- 08 = Semi-gloss black
- 12 = Green
- 99 = Custom RAL or computer matched color to be specified, consult sales representative.

6 Voltage

- A = 120V
- B = 277V
- F = 220V (1000W TH only)
- G = 240V (900W, 1000W TH only)
- H = 347V

7 Option (See Accessories Section for specifications)

- 00 = No options
- 0D = Remote ballast for dry indoor location
- 0H = Long distance remote ballast up to 35' (10m) for 150W HPS, up to 50' (15m) for 250W and 400W HPS
- TL = Micro-prismatic tempered glass lens (replaces clear flat lens), offers smoother light pattern at reduced peak candlepower.
- XX = For modification not listed, include detailed description. Consult factory prior to specification.

8 Standard

- 0 = UL, Underwriters Laboratories
- J = CSA, Canadian Standards Association

Example

**M152 - 0250 - X - 06 - B - 0D0**

Large outdoor model for use with 250 watt metal halide lamp. External yoke for use with accessory cantilever or side-mounted slipfitter (order separately). Dark bronze powder coat finish. Remote 277V ballast for dry indoor location. UL.

Type: \_\_\_\_\_

Accessories

Order separately. See Accessories Section for specifications.

AC \_\_\_\_\_ 36 \_\_\_\_\_ = **Cantilever**, 36" (914mm) setback (for use with X mount unit)

0 = UL  
J = CSA

**5 Finish**

L = single unit (downward or upward facing only)  
U = double unit (down and upward facing)

ASF \_\_\_\_\_ T10 = **Top-mount slipfitter**, for 2-3/8" O.D. stanchion, pole or tenon (for use with single X mount unit)

**5 Finish**

ASF \_\_\_\_\_ S10 = **Side-mount slipfitter**, for 2-3/8" O.D. pole, stanchion or tenon (for use with single X mount unit)

**5 Finish**

AE \_\_\_\_\_ V \_\_\_\_\_ 0D0 = External vertical blade **baffle**, black, for lengthwise shielding

2 = 25° shielding  
4 = 45°

C = 300W, 350W TH; 150W, 175W HID  
D = 250W, 400W HID  
F = 900W, 1000W TH; 2x400W HID

AV \_\_\_\_\_ 0D0 = **Cutoff visor**

**5 Finish**

C = 300-500W TH; 150W, 175W HID  
D = 250W, 400W HID  
F = 900W and 1000W TH; 2x400W HID

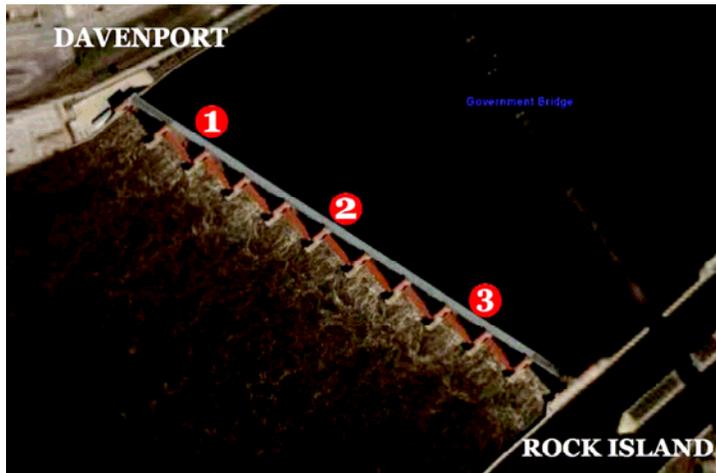
AXF = Wet location **color filter** assembly, interchangeable frame with stripped color glass.

**Not suitable for all lamp wattages.** Consult factory for complete specifications and ordering information.

AFK000X \_\_\_\_\_ = Ballast **fuse** kit

0 = UL, J = CSA





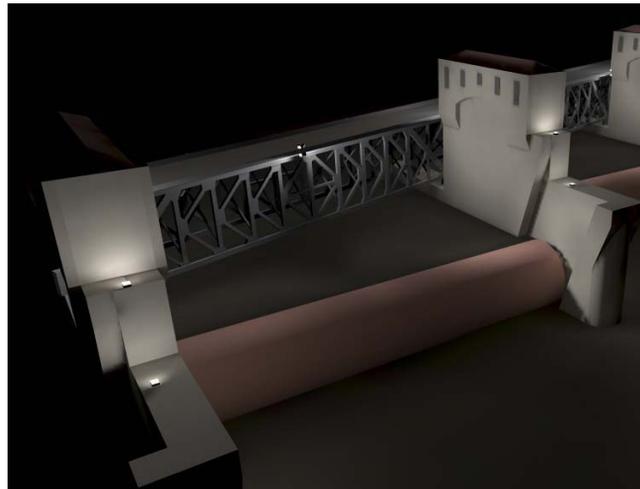
## RIVERVISION PLAN

### LOCK AND DAM 15 LIGHTING MOCK-UP

**This is your chance to offer comments, opinions and choose one of several lighting designs developed by RDG Planning and Design of Des Moines, IA for the Cities of Rock Island and Davenport, Development Association of Rock Island and DavenportOne.**

**WHEN? Wednesday, May 10, 2006  
After dark – about 8:30 p.m. until 10:30 p.m.**

**WHERE? From your favorite spot to view the Dam**



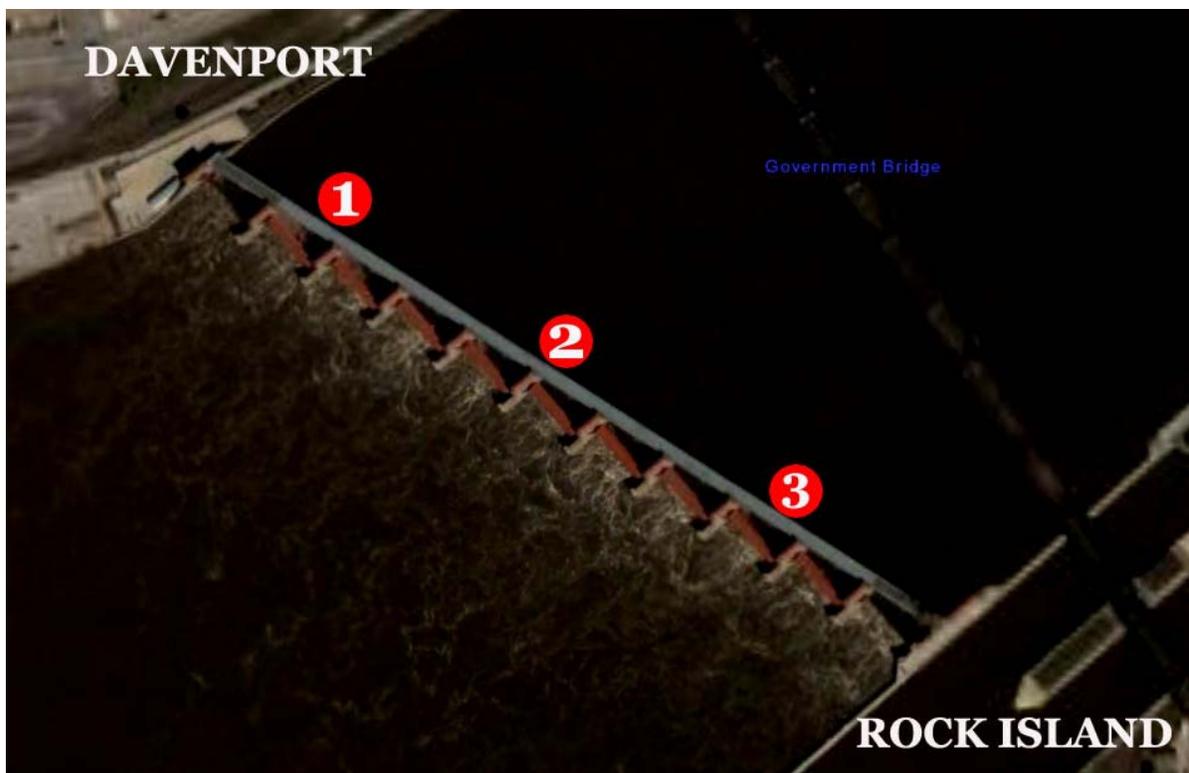
**WANT MORE INFORMATION? Contact Alan Carmen, Rock Island Planning and Redevelopment Division, 1528 3<sup>rd</sup> Avenue, 309/732-2900 or [planning@rigov.org](mailto:planning@rigov.org). Download the Mock-Up Comment Sheet [here](#).**

**Funded by the Riverboat Development Authority, DARI, DavenportOne and the Cities of Rock Island and Davenport.**

## LOCK & DAM 15 LIGHTING PROJECT MOCK-UP REVIEW

**MOCK-UP:** The intent of a lighting mock-up is to give the design team the opportunity to test different lighting fixtures, wattages, distributions and manufacturer's products to aid in the design process and final selection of lighting equipment for the installation. Our client (s) is also then granted the opportunity to get a glimpse of what the final result may look like and make comments or ask questions. The entire Dam will not be illuminated as part of this as this process provides the design team the opportunity to compare different strategies and approaches as part of the design process overall.

Three separate sections of the dam will be illuminated. Refer to these as AREA #1, AREA #2, or AREA #3.



The design team, City of Rock Island, City of Davenport and the Corps of Engineers are requesting comments and observations from a number of observers representing different organizations and viewing the dam from various vantage points in the region. We ask that you record your observations as completely as possible— documenting the location you were at when making the observation(s).

Record your reaction from each vantage point that you visit. Provide constructive comments such as “good lighting level”, “accentuates the architecture”, “too bright”, “fixtures were glary”, etc. to help the design team gauge the success of each of the lighting areas being tested. Do not, however, review the entire lighting mock-up as a single concept. Each of the three options will have its own advantages and disadvantages. Use the form on the following page as a reference for your responses.

Questions can be directed to David Raver/ RDG Planning & Design at 515-491-3235 during the mock-up if necessary.



Return all observation forms to one of the following no later than noon on May 12<sup>th</sup>, 2006.  
Alan Carmen: City of Rock Island (FAX: 309-732-2930 or e-mail: [planning@rigov.org](mailto:planning@rigov.org))  
Charles Heston: City of Davenport  
Larry Jones: Corps of Engineers

**COMMENTS:**

OBSERVATION LOCATION: \_\_\_\_\_

*Remember to record which section (#1, #2 or #3) you are commenting on. You can also compare the three mock-up areas to each other or other surrounding lighting if that helps explain your observation.*

---

*CIRCLE ONE RESPONSE TO EACH STATEMENT:*

**1) General Impression of the overall lighting:**

EXCELLENT                      GOOD                      FAIR                      AVERAGE                      POOR

**2) Preferred section of the mock-up (circle one and explain):**

AREA #1                                      AREA #2                                      AREA #3

**3) Lighting of the Dam is:**

- A. A great idea. It brings regional pride to this historic icon and will implement the RiverVision Development.**
- B. A good idea. The communities need to work together to figure out a way for this to happen.**
- C. An ok idea. I need to know the cost before I can get excited about it.**
- D. A bad idea. Not worth the time, energy or expense.**
- E. A good idea, but I have the following concerns:**

*Continue on back if necessary*



	A	B	C	D	E	F	G
17	OBSERVATION LOCATION	COMMENTS	IMPRESSION	PREF SECT	OPINION	FEED BACK	MWA
18	Up river side of RI Casino & by the old dock in Davenport	#1 Liked yellow lighting. It blended in with the lighting along River Drive in Davenport. It needed to display more of the dam. #2- Did not like the glaring white light. I liked it displaying more of the dam. #3 Could not see well at all.	Blank	Area 2	A	Area #2 lighting with yellow bulbs. #2 lit up more of the dam.	
19	In front of Effie Afton- Rock Island	#1 Blends into Davenport background - hard to see #2-Well lit - shows off roller and lock houses #3-shows structure can not see pier houses		4 Area 2	B,C		
20	1-Modern Woodmen, 2-Upstream from RI Casino, 3- Davenport, "Fishing Steps"	#1 Too far away and too little area lit to appreciate plus too many other type of lights for distraction. #3 Up close - much better. I especially appreciated the softness of Area #1 but think #2 will probably be more dramatic.		4 Area 2	A,B,E	I would be pretty happy with most designs as long as the red rollers and the pier houses were emphasized. I liked the suggestions of lighting the insides of the pier houses and their red roofs. Feel like the blue lights make it too busy with the red accents.	
21	The Dock, Sky bridge, Centennial drive over	From the Dock and even the Skybridge, this one #1 seemed less garish than #2 and #3. However, it all but disappeared, as did 2 & 3 when viewed from the Bridge. #3 would be my record choice, because it casts light on the dam.		2 Area 1	C	I like the idea. None of these samples does the trick though.	
22	Davenport at the Dock	#1-Yellow light unpleasant color for structure. Also, roller not highlighted. Not enough arch detail with this lighting. #2- From this vantage point, lights were right in our eyes - too much glare. #3- Nice white light, good highlighting of both roller and "Bullnose" on pier house structure		2 Area 3	A	So long as we can work out which details enhance the structure when lit and which can be left dark	
23	Davenport riverfront near dock restaurant (line 23 & 24 from same)	#1 lights not placed to dramatically show bottom/middle of pillar structure. #2 Lights show upper to lower sections of dam. #3- Not visible - must be in further downstream location to see at this angle		3 Area 2	C	Pillars and Rollers highlighted clearly rushing water form can be seen - Area 1 too dim; Area 3 too grey	
24	Rock Island Riverfront @ 9-10PM ( goes with line above- same survey sheet)	#1 clutter lights compete and seem dimmer than surrounding lights; #2 bluish lights contrast to yellowy lights mall other sides; #3 flat and dim - iron works not clear nor pillars and rollers		3 Area 2	C	Pillars and Rollers highlighted clearly rushing water form can be seen - Area 1 too dim; Area 3 too grey	
25	Davenport Skybridge (goes with next line also)	Lamps over power light reflected off structure in Area 2. This is a major problem. Can this be shielded some way? If so, Area 2 lighting preferred, if not prefer Area 1 (sodium) since less glare		3 Area 2 or 1	A	If budget is issue, drop lighting upstream side.	
26	Riverbank behind Dock Restaurant- goes with line above	Area 1 acceptable but too sub dood. Would like higher light level and accent on water discharging. Area 2 Looks good from this location, but see note above		3 Area 2 or 1	A	If budget is issue, drop lighting upstream side.	

	A	B	C	D	E	F	G
1	OBSERVATION LOCATION	COMMENTS	IMPRESSION	PREF SECT	OPINION	FEED BACK	MWA
2	Casino parking & Eagle area at 20th Street	The three examples of lighting styles on the dam hardly make a dent in the total picture, especially since the Government Bridge, behind the dam, has extensive lighting for traffic.	1	Blank	E	Why not try something 21st Century? How about dancing, multi-colored lights? What about a laser-mirror light show for the entire square? What about a roving spotlight from the Centennial Bridge? If, somehow, completing the square with light is imperative, let's make it memorable. A few more lights, hardly noticeable in the total ambience, are a throwaway not only of effort but also of vision.	
3							
4	Centennial Bridge	#2 provided the best over all lighting without being either too dark or too bright, and still accenting the structure	4	Area 2	B	None	
5	Centennial Bridge, Modern Woodmen, RI Bike Path		0	Area 2	A	Really liked area 2 the best, buit doesn't show up well	
6	Several on Iowa and Illinois shores	Generally, the Rock Island shore is a better place to view this project.	4	Area 2	A	White light can be seen from a greater distance away. Too many hps lights on Davenport shore.	
7	Rock Island - Modern Woodman		3	Area 2	B	From other locations the lights tend to glare	
8	Eagle Watch Stairs-Davenport	Although the lights could be a little less "glaring" I liked the effect	4	Area 2	B		
9	Rock Island Levee	Better light, brighter than #1 with HIP sodium. Better light placement on the concrete abutments.	4	Area 2	C	Some light does get to the rollers which is a good area. Some light on the roofs of the abutments would show them off also	Yes
10	Centennial Bridge	Better light than 1 & 3. Better than HIP sodium. Contrast not as lost in the background. Better coverage-this lights the abutments and part of the rollers	4	Area 2	C		Yes
11	Rock Island/Davenport casinos		4	Area 3	C	Best overall and not too bright	
12	Davenport riverfront near dock restaurant	#2 does the best job of lighting the tower structures of the dam.	4	Area 2	E	It is the most dramatic scheme. I didn't like the orange cast of the lighting #1. I don't think either #1 or #3 provide enough light to be effective.	
13	Modern Woodmen Parking Lot	#2 does the best job of showing the dam	4	Area 2	A	It seemed the brightest which is needed. Some additional "playing" with the lighting is needed. It is a great idea and helps promte the river and our cities.	
14	Top of levee walkway behind Armory and Casino RI deck	Prefer lighting that lights up rollers & faces. Blue light is too dim. The rollers are what the dam is all about	3	Area 2	B,C,E	If the Rythm City Casino moves up river to the proposed location, lighting the dam would be almost lost in the "noise" of the casino. A lot of money for very little benefit.	
15	Modern Woodmen	#2 is more noticable - highlights the architectural features better. Would like to see crane trestle brought out more	4	Area 2	A	#1- Too subtle; #3 Not worth it	Yes
16	By Pier Restaurant - Davenport, IA	#1- Looked good when close- accented the windows- gold color shows water turbulance. #2- Shows water turbulance- lights up well. Glare from lights. #3 Can't see it	4	Area 2	B,C		

	A	B	C	D	E	F	G
27	OBSERVATION LOCATION	COMMENTS	IMPRESSION	PREF SECT	OPINION	FEED BACK	MWA
28	RI Casino, Modern Woodmen, Eagle Viewing Area	#1 is the best; #2 white light is not as complimentary to red rollers; #3 not enough lighting- disappears	3	Area 1	A	Light the "houses" from inside as well	
29	Centennial Bridge	#1 Barely see lighting; #2 nice option but not as good as #3's layout/arrangement; #3 had a nicer /more pleasing light layout	2	Area 3	A	With other lights on shore and misc ambient lighting, Lock & Dam lighting didn't stand out. It was a very underwhelming light.	
30	Sky Bridge - Davenport	#1-seemed to wrap the town in a soft glow and hinted at the roller dam and water; #2- looked fine from RI Boatworks, but was far too bright when viewed from Davenport; #3- appeared to industrial of a look	4	Area 1	B	A few comments from other viewers at the sky bridge seemed to indicate the public was expecting more.. However, no one wants to have Las Vegas on the River	
31	Next 3 lines go together: Dav Fishing Amphitheater	#1 Not very dramatic; #2 Towers well highlighted, showed side features 3 windows the most; #3 difficult to see from here	4	Area 1	A,B	Area 1 Husband/kids liked red glow - e.g. the color, Area 2 My opinion -liked the highlight of the towers; it stood out and was more dramatic but the roller not highlighted as much Area 3 -Average	Yes
32	Crossing Centennial Bridge	#1,2, 3- While driving/riding, the hand rail blocks the view and it was difficult to differentiate subtle differences.	4	Area 2	A,B	Heard bystanders who were puzzled; they expected more drama; explained the 3 areas to a few but thought it will would be more dramatic	
33	Levee between Stern of Casino & MWA Office	#1 liked red cast of color on towers/roller; #2 Really highlighted the towers and architecture; #3 Too subtle and blended with other background lighting next to the Lock	2	Area 3	AB	See above two columns	



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**Lock and Dam 15 to be lit up next week**

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By Kurt Allemeier, [kallemeier@qconline.com](mailto:kallemeier@qconline.com)

Lock and Dam 15 will have a new look for a short time next week.

The lock and dam running from Arsenal Island to Davenport will be lighted May 10 with four different styles being considered as part of RiverVision, a joint long-range plan between Davenport and Rock Island to enhance the Mississippi River. Sunset is at 8:10 p.m., but the lights might not be fully visible until about 30 minutes later.

Prime downstream viewing locations are from the Rhythm City casino in downtown Davenport, near the Casino Rock Island in downtown Rock Island, and Centennial Bridge between the two cities. Lighting will also be visible from the government bridge.

The various lighting schemes will highlight the lock and dam's pier houses, rollers, and crane decks above the rollers.

The cities want public input on the project, said Alan Carmen, director of planning and redevelopment for Rock Island. Surveys will be available in the Rock Island planning office and on the city's Web site, [rigov.org](http://rigov.org).

A number of issues were considered in the four designs that will be on display. Safety, so the lighting isn't distracting to tow boats, led the list.

Maintenance, energy use, installation costs and continuing operating costs, glare, the environment and security also were considered.

Light wavelengths that don't attract insects — such as mayflies and spiders — also are considered in the designs.

The company that is creating the light designs is to provide operating and maintenance cost estimates to Rock Island and Davenport, Carmen said.

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**Comments**

1 comment on this article

Posted by **Charles** from **Jacksonville, Florida** at 9:29AM on Friday, 5/5/06  
It's a good idea and worth the effort. The city of Jacksonville, Florida did something similiar here in that they light up the Main Street bridge at night in a shade of blue. It attracts alot of visitors along the Landing at night and has received alot of positive feedback.

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### ***RiverVision project would take place in phases*** By Brian Krans

[bkrans@qconline.com](mailto:bkrans@qconline.com) ,

The \$125 million venture designed to capitalize on Rock Island and Davenport's riverfronts will come off the drawing board in 2005.

The two cities plan created a bi-state authority to oversee the RiverVision project. The committee will advise the cities' councils about riverfront development, including funding and design.

Rock Island Mayor Mark Schwiebert and Davenport Mayor Charlie Brooke soon will begin nominating people to the 18-member RiverVision Coordinating Committee.

Announcement of the new authority came in December, a year after the cities hired Cambridge, Mass.-based consultants Hargreaves Associates. Hargreaves recommended lights, piers, fountains and a water taxi to connect the two cities' riverfronts.

Davenport's side would emphasize greenspace and recreational activities, while Rock Island would focus on waterfront housing and commercial development.

Over the next 15 to 20 years, the two cities are expected to spend \$125 million on shared waterfront. Davenport is expected to pay \$100 million, with Rock Island's share in at \$25 million.

Hargreaves' final report lists a four-phase plan to capitalize on each city's features and suggests some revenue options. City officials hope to use both private and public money, including local, state and federal funds.

The first phase, estimated at \$75 million, includes fountains, ferries, transient boat docks, piers and increased lighting on existing riverfront features. The other three phases call for urban parks, an observation spire, increased waterfront housing, and a 10,000-person amphitheater in Davenport.

Hargreaves suggested Rock Island consider a hotel/motel tax and a 0.5 percent public tax of some sort, and offer tax incentives to lure contractors to build riverfront housing.

"Our objective is to put flesh on the ribs and take the broad report from Hargreaves and narrow it down," Mayor Schwiebert said.

Rock Island hired Schreiber/Anderson Associates to work on vital levee space Mayor Schwiebert said will open up when Jumer's Casino Rock Island moves to its expected spot near Interstate 280 and Illinois 92.

There, Mayor Schwiebert said, dock space is a possibility. Another avenue is an elevated park over parking on the levee between the Modern Woodmen building and Royal Neighbors.

"Right now it's kind of an impediment. You can't see the river right now," Mayor Schwiebert said. "Schreiber/Anderson is looking at what they can do with the area. It could be an attractive greenspace."

The first project shared by both cities is expected to be the lighting of Lock and Dam 15. Other projects shared by each city could include coordinating bus lines to connect the cities' downtowns, connecting a bike path, and other joint programs. Mayor Brooke said a light-rail system or cable cars are possible options.

Because it is a bi-state project, the two mayors hope Iowa and Illinois senators and representatives will work together to secure federal funds.

RiverVision already has some congressional support because the project involves the western tip of the federally administered Rock Island Arsenal, which employs Iowa and Illinois residents, the Hargreaves report said.

### **The price of Vision**

Project costs for the four-phase RiverVision plan:

Rock Island, \$25 million:

Rock Island Rail Yard, \$15.7 million

Modern Woodmen of America, \$1.89 million

Armory Park/Sylvan Slough, \$7.5 million

Davenport \$100 million

Former Rock Island Railroad Yard, \$5 million

Builders/River Gulf/W.G. Block, \$14.2 million

LeClaire Park, \$18.1 million

Centennial Park, \$26.6 million

Crescent Park, \$36.1 million

### **Phase 1**

Davenport

-- Improve LeClaire Park.

-- Relocate surface parking to create Figge Plaza and Sky Bridge Plaza.

-- Introduce green fields and terraces in Centennial Park.

-- Focus on new development immediately east of Centennial Bridge, particularly River Drive to 4th Street and Gaines Street to Harrison Street.

-- Convert the Freight House into a public market.

-- Improve area around John O'Donnell stadium.

### Rock Island

- Determine future of Rock Island Armory, whether to renovate or demolish.
- Plan Armory Riverfront Park between armory and Modern Woodmen of America offices.
- Build an urban promenade stretching from downtown to 24th Street.
- Find way to replace parking removed by creation of park, possibly by parking underneath the park.
- Renovate McKesson building into condominiums and office space.
- Plan market-rate condos along Sylvan Slough between 21st and 24th streets.
- Build low-rise townhouses on existing Parking Lot C.
- Adapt water plant for residential and commercial uses.

### Both

- Light Lock and Dam 15.
- Improve vantage points for eagle watching.
- Install river fountains.
- Expand Channel Cat water ferry.
- Build transient boat docks and piers.

### **Phase 2**

#### Davenport

- Expand Quad City Sports Center.
- Add seasonal outdoor skating rink and informal recreation fields to Centennial Park.
- Begin planning Crescent Park, which begins west of Marquette street.
- Focus development of commercial uses and affordable housing in the western half of the former Rock Island Lines railyard, between 4th and Federal streets and Iowa and Farnam streets.
- Add medium density housing in the area between Gaines and Marquette streets and from River Drive north to 4th Street.

#### Rock Island

- Focus development on the west riverfront, between 11th and 14th streets, with market-rate housing built over underground parking.

-- Create river overlook at 11th Street.

-- Expand urban promenade west to the new housing and 11th Street overlook.

Both

-- Finish first phase projects not done yet.

### **Phase 3**

Davenport

-- Focus on medium-dense, market-rate housing and commercial buildings in the eastern half of the former Rock Island Lines railyard, between 4th and Federal streets and Farnam Street and River Drive.

-- Build Crescent Park with 10,000-seat amphitheater and skate park.

-- Build a new sports pavilion at Centennial Park.

Rock Island

-- Create North Gardens of the Quad City Botanical Center.

-- Renovate older homes and buildings, and build new, but historic-looking, homes on vacant lots north of 4th Avenue and west of 15th Street. Part of the new neighborhood in Old Chicago concept.

-- Convert Spencer Towers from elderly residential to market-rate apartments.

Both

-- Build on growth from phases 1 and 2.

-- Light Crescent Bridge.

### **Phase 4**

Davenport

-- Finish western half of Crescent Park, which extends south of River Drive/U.S. 61 toward the river to Credit Island.

-- Develop Upper Pool Linear Park, which would be from River Drive to the river between Pershing Avenue and Federal Street.

-- Allow the market to drive housing and commercial development north of Crescent Park.

Rock Island

-- Transform some Sunset Business Park buildings into market-rate housing.

-- Improve and green up riverfront down to Sunset Park.

**Source:** RiverVision Final Report, July 2004 (Hargreaves Associates)

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Friday, May 12, 2006

F

## Check out the Lock & Dam 15 light test

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By Tom Saul | [Comments\(19\)](#)

Lock and Dam 15 between Davenport and Rock Island, a functional structure not known for its beauty, will be dressed up for a night out tonight and Quad-Citians are invited to view and rate the show.

Three different lighting schemes will be affixed to the roller dam to test hardware, wattage and the distribution of lighting fixtures. Residents are asked to rate and comment on the illuminated link between the two cities as part of the joint River Vision riverfront redevelopment.

“Part of this is to see what people like and don’t like, and what they want or don’t want, and to identify costs and where the money will come from,” said Alan Carman, Rock Island’s planning and redevelopment administrator.

Lighting of the roller dam was suggested by citizens and included as part of a 2004 plan to redevelop the riverfronts of Davenport and Rock Island in a report by Hargreaves Associates of Cambridge, Mass. Tonight’s “lighting mock-up” will be conducted by RDG Planning and Design of Des Moines, which has been hired to design the lighting.

While acknowledging that it will be difficult to light such a long, low structure with few interesting architectural features, David Raver, a lighting designer for RDG, said those who view the demonstration will notice clear distinctions among the three configurations.

The differences will come from the color of the lighting and the angles at which the fixtures are placed, Raver said.

“The mock-up is meant to serve two purposes,” he said. “First, it’s a real-world test for us and the equipment that will be used. Second, it will give us some feedback. Hopefully, as people view the different configurations, the differences will be very apparent.”

RDG has experience lighting large buildings, Raver said.



QUAD-CITY TIMES FILE -- Three lighting schemes will be tested tonight on the Lock and Dam 15 roller dam.

That often entails aiming lights upward to accentuate architectural features. The roller dam lays flat and the angle at which lights are aimed must not disrupt the ability of tow boats and other vessels to navigate the river.

At the same time, the lighting will try to enhance a local landmark and "keep it from disappearing at night," Raver said. "Light is like paint, but we won't be using a lot of small strokes. Instead, it will be broader strokes."

In late 2004, former Davenport Mayor Charlie Brooke and Rock Island Mayor Mark Schwiebert announced plans for the lighting project with a grant from the Riverboat Development Authority as the first effort of the \$125 million River Vision effort.

There is no timetable for completion of the lighting, Carmen said. That will depend on how much it costs and where the money can be found to build and maintain it.

Tom Saul can be contacted at (563) 383-2453 or [tsaul@qctimes.com](mailto:tsaul@qctimes.com).

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The following are comments from the readers. In no way do they represent the views of the Quad-City Times or Lee Enterprises

**meu donato**

wrote on May 10, 2006 6:07 AM:

"If Rock Island can find the money to light a dam, they can find the money to reopen the police station in Century Woods."

**Heather**

wrote on May 10, 2006 7:47 AM:

"I am excited about this project, but the story does not give enough details. The public can view the test, but where do we go to view it? We can rate it, but how? Will there be people on-site taking opinions, or is it via website after the fact? "

**Dam Lights!**

wrote on May 10, 2006 8:39 AM:

"Alan Carman, or Alan Carmen? Which is it, Tom!?"

**Let Me Get This Straight**

wrote on May 10, 2006 10:11 AM:

"How much money will the two cities pay for a project that doesn't bring any revenue to either one of the cities? This is kind of like the bridge to nowhere in Davenport. The city throws all sorts of money for a project that doesn't generate any revenue. Does that make sense?"

**Bob**

wrote on May 10, 2006 11:06 AM:

"TO "Let Me Get This Straight" I know, your one of these "Give me basic services only" guys. But then, how does filling a few pot holes make any revenue?? You also must be one of those that live in a four wall, no windows, "basic" house. Don't give me any extras!!"

**Let Me Get This Straight**

wrote on May 10, 2006 11:58 AM:

"Ummm...Bob do you have any idea how the pot holes are paid? They are paid from revenues that the Cities get from things such as property taxes (from businesses and homes), sales taxes, hotel/motel taxes, events, festivals, etc. Your comparison of pot holes and revenues doesn't make any sense. Are you on the Davenport City Council by chance? Now, building something like, say, a tourist attraction of some sort that will bring in people from out of town that will buy meals, gifts and visit other places will bring in more money to the city. If the cities were to attract a business to build it's headquarters in the area and bring in new jobs that would lead to more people spending and buying this also would raise revenues in the city. How will this lighting of the locks and dams bring any revenue into the cities? How will the lighting of the locks and dams bring any visitors or new businesses to the city? I just don't get it. Bob, you don't know me so well. So don't tell me, or anyone else, that you do. Thank you."

---

**Ryan**

wrote on May 10, 2006 12:10 PM:

"To Bob: You are in the decided minority if you actually want to see added amenities, growth, and development in this city. Welcome to the club. "

---

**Concerned**

wrote on May 10, 2006 12:21 PM:

"I agree with "Bob". If all we have are "basics", then what a boring, anytown-USA we would have."

---

**Marie**

wrote on May 10, 2006 12:25 PM:

"Projects like the proposed dam lights, the Centennial Bridge lights, the fountain in VanderVeer Park, and (though I have to admit I am not too crazy about it myself) the skybridge to nowhere are about revenue indirectly. People may not have to pay admission to them, but they create excitement, atmosphere, and most importantly a REASON for being downtown. Remember when downtown was a wasteland? People have to want to go there before they will spend money there. And people have to be there for businesses to invest there. Perfect example: a few years ago, John O'Donnell was rated one of the most beautiful ballparks in the country by a sports magazine, citing the bridge lights as a reason. That was one of the pieces of evidence the City used in its successful bid for River Renaissance grant money, which led to further improvements. Can anyone say there are fewer businesses and less nightlife because of those lights? In fact, it is the opposite, there is a lot more going on downtown than there was when that article was written; and in turn, a lot more going on downtown when the article was written than when the lights were installed."

---

**Yeah Right**

wrote on May 10, 2006 1:09 PM:

"If I were living in Chicago I know I would be so excited to see the skybridge and the lighted lock and dam. (Can anyone hear the sarcasm in my voice.) I'm all for amenities, growth and development, but can't we use this money to attract businesses to the area that will actually provide jobs? "

---

**forqca**

wrote on May 10, 2006 1:29 PM:

"maybe we can have lighted rollers too. i think that would be neat."

---

**Cry me a Mississippi River!**

wrote on May 10, 2006 2:38 PM:

"You people all cry "what can my city do for me!" What have you done lately to make your city a better

place?????? NOTHING!!!!!! You are to busy cryin online!!!!!!!"

---

**Hey MEU!**

wrote on May 10, 2006 2:42 PM:

"Instead of reopening the police station in the ghetto, why dont you tell the gangsters to stop shooting and robbing and beating people!! Or better yet - MOVE OUT!"

---

**Swing Owner**

wrote on May 10, 2006 2:52 PM:

"So this is where my check went to? Are you kidding me?"

---

**jeez**

wrote on May 10, 2006 3:18 PM:

"Can you say waste of M O N E Y? I can."

---

**Lifelong RI Resident**

wrote on May 10, 2006 3:24 PM:

"While I agree that quality of life is an important issue, too many people here are so busy trying to make a living working 2 or more low paying jobs to have time to care about "quality of life." The cities here should spend more time on trying to attract new employers that pay a liveable wage. As for the improved nightlife downtown, it seems to be centered around taverns and gambling. Both of which do make money but appear to extract a high human cost. (I personally know 2 individuals who committed suicide over gambling problems.) BTW, I don't live in the above describe "basic" house but, rather, have a nice modest home. In the 10 years I've owned it, my taxes have gone up 100% so I believe that local government also has a fiscal responsibility to its citizens to hold spending where possible. "

---

**Concerned**

wrote on May 10, 2006 3:28 PM:

"How many of you purchase things that ,maybe, you should not try to afford? Do you buy things you don't "need"? Do you ever spend just a little more than you really should have? And you can promise me you will always stay within your budget and never buy things you don't NEED. Get real! Everyone seems to expect MORE from everyone else than they expect from themselves. I challenge all of you to FIRST fix the leaking roofs and the squeaking doors and the potholes in your lives, then MAYBE you have a right to spend money on life's little extras. How about walk your talk?"

---

**Money well spent**

wrote on May 10, 2006 4:28 PM:

"You are exactly right, "Yeah Right." Although Chicago (where I now live) maybe isn't the best example. Has anyone been to Des Moines or Omaha lately, two places of similar size? They aren't building skybridges to nowhere multi-million dollar art galleries in between crack houses or lighting up dams. They are actually reviving their downtown areas, attracting new business and retaining the incumbents in an effort to lure young professionals like me back home after college and keep us once we are there. Except for one or two blocks, downtown Davnenport is still a wasteland. The only thing that is going to change that is by making it live-able again. People my age don't want to buy a house or condo on the edge of town that looks just like the one next to it and the one next to that. Revenue from visitors and tourists should be the icing on the cake, especially in area like the Quad Cities. Want to increase revenue? Do it organically. Attract new, higher paying jobs. Keep young professionals from chasing their dreams elsewhere. The lights on the dam may looks nice, but judging by the direction all of these "posts" have taken, there's a much bigger issue at

hand. "

**MT**

wrote on May 10, 2006 9:12 PM:

"I sure hope people from out of town do not stumble across these comments showcasing the lack of pride you people have for where you live."

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Friday, May 12, 2006

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## Lock and Dam 15 lights up the night

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By Tom Saul | [Comments\(21\)](#)

After sizing up the three lighting configurations on Lock and Dam 15 on Wednesday night, Charlie White of Rock Island said they made the structure look like a railroad crossing or a street or a factory, anything but an architectural landmark that links Davenport and it's sister city across the river.

"I just hope my government isn't paying for this," White said of the mock-ups by RDG Planning and Design of Des Moines that were meant in part to give citizens an idea of the possibilities for how it might look if the entire structure were lit.

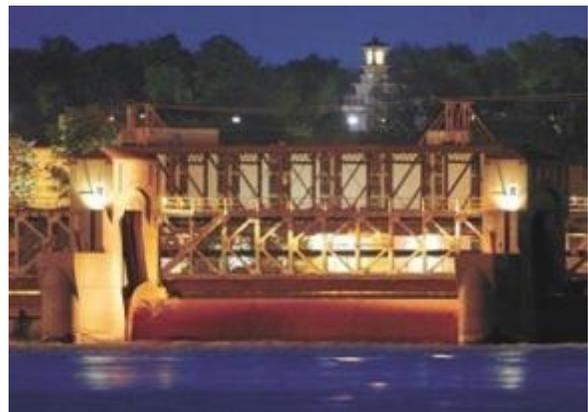
Doug and Ellen Snowbarger of Davenport said they were expecting something a bit wilder than the sedate appearance of the configurations that were demonstrated on portions of the dam. They noted that in their hometown of Ottumwa, Iowa, there is a bridge that spans the Des Moines River that is lit with purple lights.

If there was a word that summed up many of the reactions from those who came out to view the configurations on the Davenport side, in the middle of the dam and on the Arsenal Island side, it was "underwhelming."

Mark Strauss, who came down to view the mock-ups after his company, Strauss Architecture Systems, was not tapped for the job, said he would have done more to accentuated the red roofs on the concrete structures that buttress the dam and the red rollers. "The red is something you want to stand out," he said.

David Raver, a lighting designer for RDG, said that because the dam is long, low and irregularly shaped, it is difficult to light. There are also issues of how to angle the lights so they don't distract towboat pilots or disrupt navigation on the river.

Alderman Keith Meyer, 3rd Ward, said a colored pencil drawing of the dam hangs inside the door of his house



John Schultz/Quad-City Times Lighting scheme No. 1 illuminates the dam structure with a softer light.



John Schultz/Quad-City Times Lighting scheme No. 2 focuses light on the pillars and the roller.



John Schultz/Quad-City Times Three lighting schemes were tried on sections of Lock and Dam 15 in Davenport.

and "it is the first thing you see when you walk in. I've always liked the structure. I don't understand why they don't light it from the inside so you can see the windows. Those are one of the nicest features of the dam," he said.

View close ups of each lighting plan and fill out a form registering your opinion.

Citizens can offer input on the configurations by downloading a form at the City of Rock Island's Web site, [rigov.org](http://rigov.org), and returning it by noon Friday. Respondents are asked to note the vantage point on the river from where they viewed the lighting.

The forms can be returned to Alan Carmen at Rock Island City Hall, Charles Heston at Davenport City Hall or Larry Jones at the U.S. Army Corps of Engineers.

The lighting project is part of the joint Davenport-Rock Island River Vision project meant to redevelop the riverfront.

Tom Saul can be contacted at (563)383-2453 or [tsaul@qctimes.com](mailto:tsaul@qctimes.com).

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The following are comments from the readers. In no way do they represent the views of the Quad-City Times or Lee Enterprises

**lets use common sense**

wrote on May 11, 2006 6:34 AM:

"Larry and Alan, lets wake up, we do NOT need the roller dams lit up. HUGE waste of money. STOP THE INSANITY, use the money for something WORTHWHILE."

**Moving out of here!**

wrote on May 11, 2006 8:16 AM:

"Romantic Evening... Fear for my life as we walk downtown d-port. Then take the skybridge to nowhere and admire the lights on the rollerdams. "

**Amazed**

wrote on May 11, 2006 8:37 AM:

"Those lights are great! Its like Christmas in May! Stop wasting your time and our money on these stupid ideas!"

**Ryan**

wrote on May 11, 2006 8:43 AM:

"If we are going to spend the money, why not light up the government bridge instead? It's a larger, more historic object that seems to have more architectural features than the roller damn."

**Fed up**

wrote on May 11, 2006 8:44 AM:

"Yet again, I am amazed at how well this city can come up with such foolish ways to waste money. This ought to give my moms group something else to laugh (or cry) about."

**To Moving:**

wrote on May 11, 2006 9:12 AM:

"Wow. You sound like a real big time spender! Is this your description of a romantic evening by yourself?"

---

**Bob Dole's cousin**

wrote on May 11, 2006 12:05 PM:

"This is wasteful. Didn't anyone ever teach those politicians to turn out the lights when they aren't using them? It is a waste of electricity, and a waste of taxpayer money. And now Davenport is trying to sucker its neighbors into paying for half of their foolishness. I wonder if this will require an EPA environmental impact study, as it affects the sensitive area just down stream from the river with light pollution."

---

**Perplexed**

wrote on May 11, 2006 1:24 PM:

"Um whats the point of putting lights on the Rollers? What a waste of time and money."

---

**John T Moeller**

wrote on May 11, 2006 2:50 PM:

"Save the funds for lights that we don't need and give some Q C senior citizens extra help on their utility bills. Most eighty or ninety year old seniors have lived for decades without the lights, how many of them are going to walk over the river to view something they don't need? You won't get twenty five eighty plus citizens to walk that area at night without a police escort. The funds for the light installation study, the installation, and yearly bills would more properly be used for warming or cooling mankind then attracting mayflies."

---

**Lawrence B. Dalton**

wrote on May 11, 2006 3:34 PM:

"It is far more important, that we get the new Hotel up, in down town Davenport. It will be far more attractive, and utility. If it is not put up, Rhythm City Casino's will leave town. We will then be left with nothing. Lights on a dam, will mean nothing."

---

**no vision whiners**

wrote on May 11, 2006 3:43 PM:

"I wonder if all these whiners complained about the Centennial Bridge first got lights? I think those lights are quite beautiful and really accent our bridge. I think this project could also be great. Are there any plans to light up our oldest/historic railroad bridge?"

---

**Rich**

wrote on May 11, 2006 3:44 PM:

"To all the negative naysayers: I guess we should turn out the lights on the Centennial Bridge too! Ever been to Chicago and see all the draw bridges over the Chicago River lit up at night? Also the huge Buckingham Fountain on the Lakefront is bathed in light at night. I guess you don't like fountains either because they "waste" water too! New York, Boston, Washington DC and many other cities light their infrastructure at night. Maybe we should impose blackout restrictions here, that would save lots of money. "

---

**MT... Like your heads**

wrote on May 11, 2006 4:09 PM:

"Do you people have any PRIDE IN YOUR COMMUNITY at all? I don't know why I even ask since I am painfully aware by your inane responses to this story that you do not. For all those who may be confused, I

will define the word AESTHETICS -- Of or concerning the appreciation of beauty or good taste -- You may want to take a minute to let the meaning of that word sink in. People from out of town... And even some of us locals (tax paying locals I might add) like to see communities improve in appearance, places are a bit more inviting that way, more people come to town, the same people spend money while they are here. A concept that I am sure is lost on most of you! Why don't you complainers go bury your heads in the sand until the next storm water fee debate. I hate that I am ashamed of where I am from, I never thought I would say that but the sour attitude in this community is just too much."

---

**Kyle C.**

wrote on May 11, 2006 4:09 PM:

"The people who generally post here have to be the most cynical human beings to ever walk the earth. Will NOTHING make you happy? We could build a tree that grew money in the middle of town, and SOMEONE would STILL complain. A "screw-you" goes out to everyone in this city who complain at the drop of a hat, and offer no solutions or positive energy to the mix at all. I've basically stopped caring completely what this group of people has to say. It's meaningless."

---

**lets think here.....**

wrote on May 11, 2006 4:11 PM:

"I made the first post also. Lets recall the roller "dam" dispute, the United States STOLE the plans for the dam from Germany. The United States also ended up LOSING the lawsuit over it. SO, lets "light up" our theft and stupidity eh? GREAT IDEA dummies."

---

**Vote for 2**

wrote on May 11, 2006 4:39 PM:

"I love the lights on the pillars and the rollers. It would be even better if they could get a blue colored light."

---

**Thomas**

wrote on May 11, 2006 4:55 PM:

"For security reasons the dam should be well lit at night. Hydro turbines should be installed to power the lights."

---

**Looks to me**

wrote on May 11, 2006 5:52 PM:

"That someone started up a "call out the cynics" campaign on here. Do I sense the City of Rock Island, the City of Davenport or Davenport One here? Those of us that oppose a project like this don't understand what it would do for the Quad Cities. Is this going to attract people to the area? Is this going to attract jobs and employers to the area? Is this going to generate any revenue to the area? Seriously you are comparing the lighting of the locks and dams to monuments and memorials in Washington, DC? You are comparing this to churches in Boston or fountains in Chicago? In case you haven't noticed there are all sorts of good paying jobs in those areas. There is all sorts of young professionals moving to that area. Maybe if we attracted good paying jobs, good employers and young professionals to the area then we could generate enough revenue to light up the locks and dams. But we aren't doing that in the Quad Cities. The skybridge is another example. Sure it may look nice, but is it generating any revenue. Those of you that have written the last few comments were probably the same people that compared the sky bridge to the arch in St. Louis. I just have to say What and Why? I just don't get it. (By the way. Kyle C? Can I ask you a question? Thank you. I don't recall that people "build" trees. They grow them or plant them.)"

---

**Ryan**

wrote on May 11, 2006 7:03 PM:

"What a relief to see some progressive people come out of the wood work. I really hope that, for some

reason or another, the cynics are a small group that are more outspoken than the people that want to see this community become more unique. "

**Tony**

wrote on May 11, 2006 7:17 PM:

"While at first this all seemed interesting, why not use the money to clean up more of the downtown area? Why not clean up the Shricker apartments? Why not get rid of the drug problem ACROSS THE STREET from the police station? I want nothing more than to have more pride in my city, but the dam wont do that for me. Less crime and saftey will go a lot further. Once that is done, then we can go ahead with the AESTHETICS. Flint, Michigan worked on making the city look good. They didnt worry about crime and jobs. What happened to them?"

**Biff**

wrote on May 12, 2006 12:15 AM:

"The lighting scheme could definitely be more creative. The city(ies) need to either go all out or do something more constructive with the money. The people that created these options should definitely not be paid. Maybe someone from the Figge Art Museum can come up with a more appeasing design?"

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**Name:**

**Comments:**





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Friday, May 12, 2006

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## Dam lights need your bright ideas

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By Quad-City Times | Comments(8)

Underwhelmed? Some were on the Davenport and Rock Island riverfront Wednesday night as they squinted to compare lighting schemes on Lock and Dam 15. The photos on today's page register the light much more brightly than the eyes of those on the Davenport skywalk, huddled around the old Dock restaurant or on the Modern Woodmen concourse in Rock Island.

We didn't hear many oohs and aahs.

Part of the problem was distance. Those individual rollers looked puny and isolated from the vantage points most riverfront viewers would see them. Also, the isolated examples didn't provide the full impression of the entire dam lit against the dark sky and river.

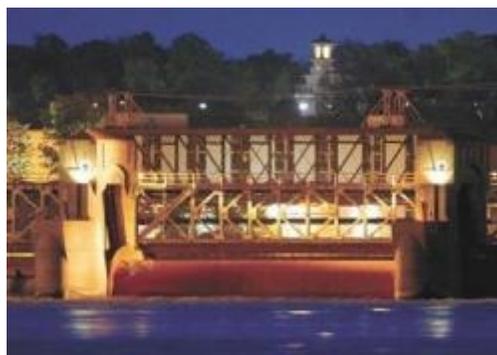
The biggest problems we had were perspective and angle. From the Rock Island side, the effect was gobbled up by the kaleidoscope of skywalk color, the glowing Figge Art Museum and Rhythm City Casino complex. On the Davenport side, the dam angles away from riverbank viewers, diminishing the full effect.

That's a conclusion we wouldn't have reached without this test. But don't count us among the naysayers. We're still too enthused to

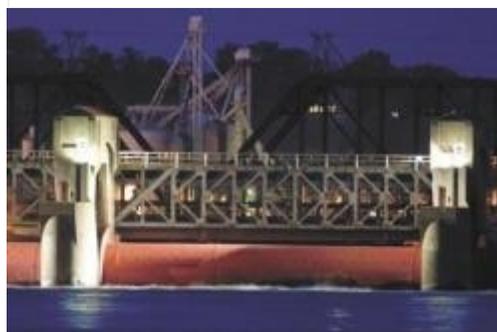
see Davenport and Rock Island working together on this interesting community project.

This is just step 1: Figure out what might look best. Take a look at these, then visit our web site to find links to the forms you can complete to be a part of this process. This is where public involvement is critical.

The next step asks the question we heard much more loudly Thursday night on the Davenport side than we've heard on the Rock Island side: How much will it cost and who will pay for it? Quad-Citians on either side of the river never need much encouragement to participate in that part of the discussion.



Lighting idea #1 - Soft light illuminates the structure behind the dam.



Lighting idea #2 - Flood lights illuminate the dam pillars and head houses on top.

## Vote

Take the Quad-City Times poll, then [download a form](#) where you can formally present your opinion to Rock Island and Davenport RiverVision planners.

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The following are comments from the readers. In no way do they represent the views of the Quad-City Times or Lee Enterprises

### Are you Serious?

wrote on May 11, 2006 1:29 PM:

"How about none of the above."

### Judi

wrote on May 11, 2006 3:53 PM:

"Is the lighting to keep the barges from hitting it? "

### JK

wrote on May 11, 2006 4:06 PM:

"I think it's a great idea to light our structures. I like #2..."

### Chuck

wrote on May 11, 2006 4:29 PM:

"How about none of the above? Perhaps COLORED lighting would be better to make this go. The current proposed configurations of lighting are poorly planned and thought out. "

### JW

wrote on May 11, 2006 5:23 PM:

"#3, none of the above, worst idea ever, well since the skybridge to nowhere."

### Kevin

wrote on May 12, 2006 12:07 AM:

"Just another lame attempt to beautify and add "culture" to the Quad Cities. I noticed the skybridge has already been mentioned. For the cost of the labor and consulting fees, this project has government pork written all over it. Why not spend the money to beautify the local parks? The only individuals who may or may not really notice the lights are the drunks crossing into Illinois or Iowa on their way back from the bars. It's not as if a family will be laying down the picnic blanket and enjoying a nice day on the dam. I can't believe this has even made the news. What's next?....How to best get rid of toe hair."

### trickery & duped

wrote on May 12, 2006 9:55 AM:

" Who's idea The Casino so they can have a lit up waterfall that we maintain for them. Who do you think you are fooling! Instead of asking the taxpayer if they want it and want to pay for it and maintain it for " EVER " . You're using trickery saying which one do we like the best then shoving it down our throat. Then saying well this is the one " YOU "picked. The same old trickery. Have you ever ask us taxpayers " WHO WILL " foot the bills for ever if we want it ? Has that" EVER " occurred to you ? Trickery and duped like the skybridge & rainwater TAX is that all you people know ? "

**Kaye**

wrote on May 12, 2006 10:22 AM:

"Kevin has it exactly right. Is there no end to these ridiculous "pie-in-the-sky" projects?! Is there someone just sitting behind a desk somewhere whose sole job is to think up ways to waste taxpayer money? My blood is reaching the boiling point..."

**» Post a comment**

Thank you for your comments! Once your comments are approved, they will appear on the site.

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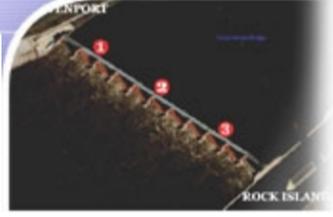
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### Rock Island "Vision 2020"

Rock Island is a growing City with a beautiful riverfront, a vibrant downtown, and livable neighborhoods. Rock Island is a proud community that respects diversity and history. Our citizens have choices for educational, cultural and occupational opportunities, quality homes, and places for enjoyment and fun. Rock Island City government is financially sound and provides the best services in the Quad Cities.

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