



## APPROVED MINUTES OF THE MEETING

**Mike McGinn**  
Mayor

**Diane Sugimura**  
Director, DPD

**Marshall Foster**  
Planning Director, DPD

**Mary Johnston**  
Chair

**Andrew Barash**

**Julie Bassuk**

**Graham Black**

**Brendan Connolly**

**Lauren Hauk**

**Laurel Kunkler**

**Julie Parrett**

**Norie Sato**

**Donald Vehige**

**Guillermo Romano**  
Executive Director

**Valerie Kinast**  
Coordinator

**Tom Iurino**  
Senior Staff

**February 04, 2010**

Convened 1:40pm  
Adjourned 4:30pm

### Projects Reviewed

Pedestrian Scale Lighting Standards  
Citywide Design Guidelines

### Commissioners Present

Mary Johnston, Chair  
Andrew Barash  
Brendan Connolly  
Julie Bassuk  
Graham Black  
Lauren Hauk  
Laurel Kunkler  
Julie Parrett  
Norie Sato  
Donald Vehige

### Staff Present

Guillermo Romano  
Valerie Kinast  
Tom Iurino  
Jenny Hampton  
Tim Trujillo



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<b>February, 4, 2010</b>	<b>Project:</b>	<b>Pedestrian Scale Lighting Standards</b>
	<b>Phase:</b>	Design update
	<b>Last Reviewed:</b>	N/A
	<b>Presenters:</b>	Darby Watson, SDOT Ahmed Darrat, SDOT
	<b>Attendees:</b>	A.J Yang, SCIDPDA Gary Johnson, DPD Rebecca Frestedt, DoN Wayne McPhillip, SDOT

**Time: 55 minutes**

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## **SUMMARY**

The Design Commission thanked the team for their presentation. It appreciates that Seattle is one of the first cities to be systematically switching to more energy efficient street and pedestrian lighting, and that there are challenges to being at the forefront of using quickly evolving technologies. The Commission commended the team for testing new lighting techniques, and for obtaining public comment on the effort to update the catalogue of lighting fixtures that are used in the city's rights-of-way. Lighting can be a transformative part of the urban environment, enriching the, sensation, character, and health of a community.

The Commission looks forward to further reviewing the changes proposed to the catalogue of lighting fixtures in the Right-of-Way Improvement Manual once the number of fixtures has been narrowed down. It would also like to be involved in reviewing changes to the Special Lighting Districts.

## **Project Presentation**

### **Project Background**

SDOT is beginning the Pedestrian Scale Lighting Plan as part of implementing the Pedestrian Master Plan. The goal is to improve how the city deals with street lighting. Pedestrian scale lighting is often overlooked and it is something that a community likes as it helps to add to the community character, increased safety, as well as way-finding. The goal is to improve the way the city deals with design and implementation of lighting.

They are developing a work plan for 2010. In deciding where pedestrian lighting efforts should be focused, SDOT is looking to add to the criteria used in the Pedestrian Master Plan to prioritize improvements. High crime areas will be an overlay that that will go into deciding lighting priority areas. SDOT also wants to look at neighborhood business districts and school districts, as well as community centers, to assure there is good lighting available at all times of the day and night for safe walking routes.

The selection of pedestrian lighting fixture styles available in the Right-of-Way Improvement Manual is very limited despite the fact that there are around 100 different fixtures available. For some styles there are several versions that differ only slightly from each other. There are few modern or contemporary options. Ahmed Darrat is leading the SDOT work to review and revise the entire catalog. They are looking to reduce the number of options in the catalog while expanding the variety of fixtures. This will make it easier to streamline stock and simplify maintenance for SDOT and City Light.

SDOT is seeking the Design Commission's input on the selection of fixtures.

One of the new technologies that is coming is Light-Emitting Diode (LED) lighting. This new type of lighting will be necessary due to the potential energy savings. Unfortunately, you cannot retrofit fixtures for LED without losing some of the advantages of High Pressure Sodium (HPS) lighting.

LED lighting provides better colored light. It's more efficient due to it being a point source. Therefore, it's more effective as a light as opposed to HPS. Lifecycle costs are also taken into account. LED fixtures last about 12 years versus 4 to 5 years for HPS fixtures. The team is looking to minimize the lighting requirements for light candles. However, issues with coloring need to be worked out. There is a test being conducted by Seattle City Light along 10<sup>th</sup> Avenue near Aloha. Some comments have revolved around the blue color emitted by these lights. This is one of the things they are working to improve before any implementation takes



Figure 1: An example of an LED fixture

There are challenges to providing lighting fixtures similar to the historic ones in use now, such as the ones that need globe lights. SDOT continues to search for a technical solution, and stakeholders will be involved in weighing the possibilities. In all neighborhoods it will be important for communities to work together to set lighting design guidelines.

SDOT is looking to begin with fixtures not on poles until the pole light prices come down.

## Public Comments

### Gary Johnson, DPD

*There are a couple projects in the Center City where the design consultants have recommended catenary designs. Interdepartmentally, these have to be worked out. There is a lot of enthusiasm in both neighborhoods. We anticipate likelihood that these will move forward.*

### Rebecca Frestedt, Department of Neighborhoods

*From the Historic Preservation Program, we applaud SDOT's and Seattle City Light's goals of achieving energy efficiency and we think it's very optimistic. We just want to work interdepartmentally to find a solution that works for both of our programs. It's important for the Design Commission to be aware that district rules have a strong preference toward globe lighting. Changing those lights would require changing the district rules. It will be important to maintain the historic integrity.*

## Commissioners' Comments & Questions

*How many do you think you'll target in terms of basic choices? What about being consistent in a district?*

There are lighting districts in Seattle. But, a lot of those districts aren't currently defined. SDOT will look to help communities determine which lighting will work best. SDOT wants more than four sections for each category in the stock catalog. We would like to include more choices for specific needs. SDOT wants to consolidate street lighting in an effort to add choices for other lighting choices such as bollard lighting, wall lights, etc.

*Is there money to paint the lighting poles to match the new lights?*

Most of the poles aren't painted. SDOT would do their best to match the selections.

*Is there any way to update or reuse hardware? Is there a chance that an LED can be used with existing hardware?*

The problem we have with most of our lights now is we have refractors. LED lights are point sources. Additionally, LED's get very hot and need to breathe or they die early. Retrofits become cost issues.

*Are the LEDs hot, internally?*

The LEDs are connected to a computer chip and the driver becomes very hot. The front side where the light comes out is not very hot like older lighting.

*You said you're going to have to replace the globe lights?*

Maybe. It's a problem in how they can expel heat. Globe lights are extremely inefficient in that they do not direct light downward.

*Do you have international examples of precedence that use LEDs, in the globe style, in an environmentally conscious way?*

We're essentially on the cutting edge of this movement. The technology is changing rapidly and they are becoming cheaper. There is just not a case we can use for an example.

*Are you finding that you're getting even lighting with LEDs?*

With pedestrian lighting, we can often get better performance than with HPS. Street lighting is different because they are further apart. It is important to hire good lighting designers become very important to avoid hot and cold spots.

*What exactly is HPS?*

High pressure sodium. Some fixtures are induction and induction might be a little better in terms of performance at this point but LED technology is surpassing that of induction.

*In terms of replacing fixtures, is one of the criteria the technology that's available? Is the plan to push the globe plan out further and further until the technology is ready?*

Technology isn't quite ready. However, we're waiting for the technology. Testing is being done to prepare for it when it arrives. Our first job is to consolidate fixtures to reduce maintenance costs. That would be ideal. Then, keep in mind that we'll have a plan soon, which will provide a guide for which fixtures will be changed out.

*Have you tried to find research on what other cities have done in terms of retrofits and performance?*

There was an IES conference a few months ago where these issues were discussed. Levels and intensities were researched in terms of human effects. This research is being considered.

*It may be good for the Design Commission to comment on the districts as the plans emerge. Is there any concern about the quality of the light?*

We're pretty certain that the white light will emerge as the leader. White light has proven popular as the quality is much better. Even the blue light has been preferred over HPS lighting where it is used. We have conducted tests in a couple areas.

*Is it just a matter of replacing the chip or bulb with the LED light?*

It is a board. We're going to have the Seattle City Light crews look at these as well to determine maintenance ease. HPS costs, in comparison, also include maintenance costs.

*This is amazingly forward thinking. The technology is fascinating and wonderful. Pedestrian lighting is more than safety but it can also be magic. It can transform the experience of the city. The frequency and quality is important. I'm really grateful to you for letting us participate.*

*Do we get to see some of the real fixtures?*

We will set up as we go through a process with Seattle City Light at the Lighting Design Lab. There are also several examples at 10th and Aloha. Summit, Broadway between Mercer and Madison. South Donovan is the newest one. Louisa has bollard lighting. The University Bridge project is still being constructed. There is also some in the International District along 6th Ave.

*I think it's great that SDOT is testing and obtaining feedback.*

The Lighting Design Lab can answer lots of questions about LEDs.

*It seems like there a place for catenary lighting.*

It is a difficult thing to work with but there will be careful attention to how we move forward with that.